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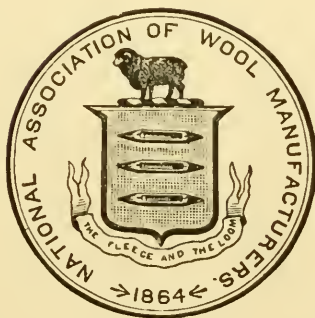




BULLETIN  
OF THE  
National Association  
OF  
WOOL MANUFACTURERS,  
1910.

FOUNDED NOV. 30, 1864.

EDITED BY WINTHROP L. MARVIN, *Secretary.*



VOLUME XL.

BOSTON, MASS.  
1910.

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# CONTENTS.

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## MARCH.

	Page
I. FORTY-FIFTH ANNUAL MEETING OF THE NATIONAL ASSOCIATION OF WOOL MANUFACTURERS . . . . .	1
Election of Officers for 1910 . . . . .	2
Tribute to President Whitman . . . . .	3
Resolutions deprecating Further Tariff Agitation . . . . .	4
Resolutions on the Death of General William F. Draper . . . . .	4
Resolutions on the Death of Josiah Perry . . . . .	5
Resolution on the Federal Census . . . . .	6
II. ANNUAL REPORT OF THE SECRETARY FOR 1909 . . . . .	7
III. THE NEED OF MORE WOOL . . . . .	11
Letter of William M. Wood to Hon. James Wilson . . . . .	11
Letter of Joseph R. Grundy . . . . .	15
Statement of Theodore Justice . . . . .	17
Statement of A. J. Knollin . . . . .	21
IV. ANNUAL CONVENTION OF THE NATIONAL WOOL GROWERS ASSOCIATION . . . . .	24
Speech of Hon. R. D. Cole . . . . .	27
Tariff Resolutions . . . . .	28
V. NEW BY-LAWS OF THE NATIONAL ASSOCIATION OF WOOL MANUFACTURERS . . . . .	31
VI. OBITUARY . . . . .	34
General William F. Draper (with portrait, frontispiece),	34
Josiah Perry (with portrait) . . . . .	36
David R. Campbell . . . . .	37
VII. EDITORIAL AND INDUSTRIAL MISCELLANY . . . . .	39
Free Trade nearing Eclipse . . . . .	39
Annual Review of the British Wool and Woolen Trade (Yorkshire Observer) . . . . .	42
The Half Year in Australia . . . . .	59
Falling Wages and Employment in Great Britain . . . . .	61
Senator Lodge on Wages and Prices . . . . .	64

	Page
Chinese Woolen Factories . . . . .	67
Improved Wool Packs . . . . .	67
British Woolen and Worsted Production . . . . .	68
The Utilization of Waste Products, by Hon. B. Broad- bent . . . . .	68
Japan in Wool Manufacture . . . . .	76
VIII. DECISIONS OF THE TREASURY DEPARTMENT OF THE WOOLEN TARIFF . . . . .	78
IX. COMPARATIVE STATEMENT OF THE IMPORTS AND EX- PORTS OF WOOL AND MANUFACTURES OF, FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1908 AND 1909 . . . . .	92
X. QUARTERLY REPORT OF THE BOSTON WOOL MARKET .	95

## JUNE.

I. THE NEW TARIFF AS AN ISSUE. By Winthrop L. Marvin, Assailed Because Misrepresented and Misunderstood .	99
A Good Revenue Producer . . . . .	100
The Republican "Insurgents" . . . . .	100
The Necessity for Reliable Information on the Effect of the Tariff . . . . .	103
II. THE COMING ANNUAL BANQUET . . . . .	105
III. THE COLWELL REPORT OF 1866 . . . . .	106
Sketch of Mr. Stephen Colwell . . . . .	106
Special Report No. 13 of the United States Revenue Commission, Wool and Woolens . . . . .	109
IV. ELECTRICITY, HUMIDITY AND YARN CONDITION. (With illustrations.) By Howard Priestman . . . . .	128
Elasticity of Wool . . . . .	129
Electricity in Wool . . . . .	132
Three Forms of Humidifying . . . . .	140
Conditioning Yarn . . . . .	143
V. OBITUARY . . . . .	152
Thomas Goodall (with portrait) . . . . .	152
VI. EDITORIAL AND INDUSTRIAL MISCELLANY . . . . .	156
Talking Down Prosperity . . . . .	156
The New Industrial China; Child Labor and Wages; Vast Consumption of Cotton Cloth . . . . .	158
Revision Downward a Fact . . . . .	160
The Duty on Class I Wools. Correspondence of C. H. Harding and Robert Bleakie . . . . .	161

	Page
Vice-president Sherman on the Tariff . . . . .	171
The World's Cotton Spindles . . . . .	174
The Wool Duties in Congress. Extracts from Speech of Hon. J. W. Fordney . . . . .	177
A Manufacturer on the Cost of Living. By Henry M. Steel . . . . .	179
The World-wide Sheep Question . . . . .	184
Textile Labor in Great Britain . . . . .	185
The Silk Association of America. Annual Meeting and Reports . . . . .	188
Electric Power in the West Riding . . . . .	195
The Wool Duty as a Farmer Sees It . . . . .	196
The 1909-10 Wool Season in Australia; the Report of Goldsborough, Mort & Co. . . . .	198
Letters approving Mr. Harding's position . . . . .	201
VII. DECISIONS OF THE TREASURY DEPARTMENT ON THE WOOLEN TARIFF . . . . .	202
VIII. QUARTERLY REPORT OF THE BOSTON WOOL MARKET . . . . .	205

## SEPTEMBER.

I. HYGROSCOPIC QUALITIES OF WOOL. (With illustrations.) By William D. Hartshorne . . . . .	209
“Perturbations” in Wool . . . . .	210
The Case of Twisted Threads . . . . .	212
Conditioning of Yarn . . . . .	214
Electrical Effects . . . . .	216
II. TRADE ORGANIZATIONS. An address before the graduating class of the Lowell Textile School. By Frederic S. Clark . . . . .	218
III. JAPAN'S INDUSTRIAL DEVELOPMENT. The Island Kingdom fast becoming a manufacturing power and a competitor of Europe and America for the markets of the world . . . . .	229
IV. OBITUARY: Robert Lincoln Lippitt . . . . .	240
Charles Mason Beach . . . . .	241
Frederick H. Daniell . . . . .	242
Edwin T. Marble . . . . .	243
V. THE ANNUAL BANQUET POSTPONED. Letter from Vice- President Sherman . . . . .	244
VI. EDITORIAL AND INDUSTRIAL MISCELLANY: “Wool Growing and the Tariff.” A Review of Chester Whitney Wright's Study in the Economic History of America . . . . .	245

	Page
A Victory Over Class Legislation. James A. Emery's Analysis of the Defeat of the Hughes Amendment . .	248
Factory Wages in England. Comparison of Wages between Clayton and Bradford, England, and Grey- stone, R.I. . . . .	252
Industrial Education. A Review of the Situation Abroad by the "Yorkshire Post" . . . . .	254
Canadian Wool Grower and Manufacturer . . . . .	258
A Deserved Promotion . . . . .	265
A College Course in Wool . . . . .	266
Part-Time Education. An Article by William H. Dooley, Principal of the Lawrence Industrial School . . . .	267
Turkish Wool Trade . . . . .	276
Chinese Woolen Mills . . . . .	277
VII. FROM PRESS AND PLATFORM . . . . .	280
VIII. DECISIONS OF THE TREASURY DEPARTMENT ON THE WOOLEN TARIFF . . . . .	291
IX. COMPARATIVE STATEMENT OF IMPORTS AND EXPORTS OF WOOL AND MANUFACTURES OF, FOR THE TWELVE MONTHS ENDING JUNE 30, 1909 AND 1910 . . . .	295
X. QUARTERLY REPORT OF THE BOSTON WOOL MARKET .	298

## DECEMBER.

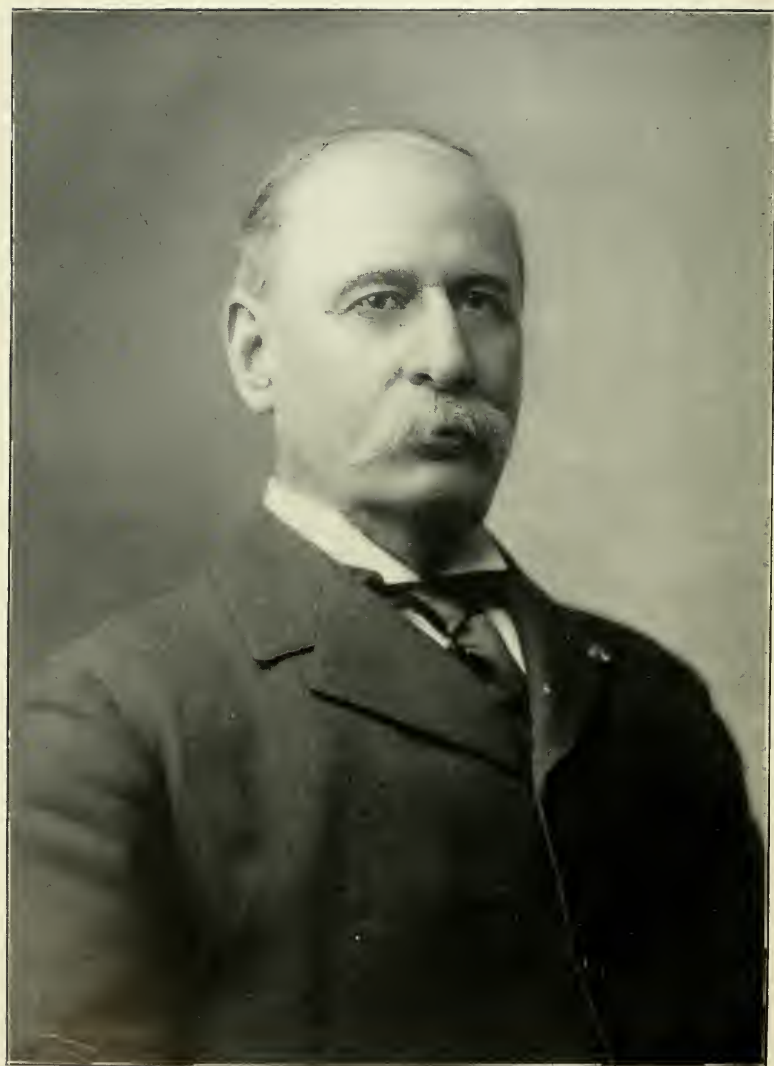
I. ANNUAL WOOL REVIEW . . . . .	301
The Number of Sheep . . . . .	301
Market Conditions in 1910 . . . . .	302
New Wool Warehouses . . . . .	305, 307
Wool Product (with map) . . . . .	309
Value of the Wool Clip . . . . .	314
Available Supplies . . . . .	315
Slaughter and Movement of Sheep . . . . .	317
English Statistics . . . . .	330
Antwerp Auctions . . . . .	335
Australian Sheep and Wool Statistics . . . . .	336
Wool Production in South Africa . . . . .	343
South American Wool Production . . . . .	344
The World's Wool Production, Consumption and Sheep,	347
II. RETIREMENT OF MR. WHITMAN, LETTER . . . . .	353
III. PIECEMEAL REVISION. By Albert Clarke . . . . .	358
IV. THE INTERESTS. By T. O. Marvin . . . . .	364
V. THE NEW AYER MILLS . . . . .	377

	Page
VI. OBITUARY:	
Henry G. B. Fisher (with portrait) . . . . .	382
VII. EDITORIAL AND INDUSTRIAL MISCELLANY . . . . .	383
The Elections of 1910 . . . . .	383
First Year of the Aldrich-Payne Tariff . . . . .	387
New Court of Customs Appeals . . . . .	389
The Textile Institute (of Yorkshire, England) . . . .	393
The Pasturage System for Handling Range Sheep . . .	397
The New Tariff as its Friends See It. By Charles Heber Clark . . . . .	403
The English Census of Production, 1907; Statistics of the Wool and Cotton Manufacture . . . . .	414
Japan's Changing Commerce . . . . .	425
Textiles and the Progress of Invention . . . . .	429
A Week on an Australian Sheep Station . . . . .	431
The Packing of Wools . . . . .	434
Russian Wools . . . . .	435
Textiles in India . . . . .	436
Irish Peasant Manufactures . . . . .	436
For Better Roads . . . . .	437
Compensation for Industrial Accidents . . . . .	439
VIII. FROM PRESS AND PLATFORM . . . . .	441
IX. QUARTERLY REPORT OF THE BOSTON WOOL MARKET . .	452
X. IMPORTS OF WOOL AND MANUFACTURES OF WOOL ENTERED FOR CONSUMPTION, YEARS ENDING JUNE 30, 1909 AND 1910 . . . . .	456









*William A. Draper*

# BULLETIN

OF THE

## National Association of Wool Manufacturers

A QUARTERLY MAGAZINE

DEVOTED TO THE INTERESTS OF THE NATIONAL WOOL INDUSTRY.

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VOL. XL.]

BOSTON, MARCH, 1910.

[No. I.]

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### National Association of Wool Manufacturers.

#### FORTY-FIFTH ANNUAL MEETING.

THE forty-fifth annual meeting of the National Association of Wool Manufacturers occurred at the Parker House, Boston, on February 2, 1910. A lunch was served at one o'clock, and the business meeting immediately followed.

Because of the absence of President William Whitman of Boston at the funeral of General William F. Draper, Vice-President Frederic S. Clark of Boston, President of the Talbot Mills, presided over the meeting, and expressed the regret of Mr. Whitman that he could not be present at this, the first meeting of the Association that he had missed in his long years of connection with it. The call for the meeting was read by the Secretary; then the report of the Secretary, Mr. Winthrop L. Marvin of Boston, was presented. The report was approved by the Association, and ordered to be printed in the Bulletin. Mr. Marvin offered his report as Treasurer. This showed that the finances of the Association were in a sound condition, with a satisfactory balance in the treasury. Mr. Franklin W. Hobbs of Boston, Treasurer of the Arlington Mills, stated that the books, accounts and vouchers of the Association had been audited and found to be correct. The report of the Treasurer was approved and ordered to be placed on file.

## REPORT OF THE NOMINATING COMMITTEE.

The Nominating Committee of the Association, composed of Mr. John Hopewell, of L. C. Chase & Company of Boston, Mr. Charles W. Leonard, of Holden, Leonard & Company of Boston, and Mr. Frederick C. Fletcher of Boston, Treasurer of the Pocasset Worsted Company, presented, through Chairman Hopewell, its report embodying the list of officers for the ensuing year, as follows :

## OFFICERS FOR 1910.

## PRESIDENT.

WILLIAM WHITMAN . . . . . Boston, Mass.

## VICE-PRESIDENTS.

CHARLES H. HARDING . . . . . Philadelphia, Pa.

WILLIAM M. WOOD . . . . . Boston, Mass.

FREDERIC S. CLARK . . . . . No. Billerica, Mass.

## SECRETARY AND TREASURER.

WINTHROP L. MARVIN . . . . . Boston, Mass.

## EXECUTIVE COMMITTEE.

ANDREW ADIE . . . . . Boston, Mass.

FREDERICK C. FLETCHER . . . . . Boston, Mass.

H. A. FRANCIS . . . . . Pittsfield, Mass.

LOUIS B. GOODALL . . . . . Sanford, Me.

EDWIN F. GREENE . . . . . Boston, Mass.

JOSEPH R. GRUNDY . . . . . Philadelphia, Pa.

A. PARK HAMMOND . . . . . Rockville, Conn.

FRANKLIN W. HOBBS . . . . . Boston, Mass.

GEO. H. HODGSON . . . . . Cleveland, Ohio.

JOHN HOPEWELL . . . . . Boston, Mass.

FERDINAND KUHN . . . . . Passaic, N.J.

GEO. E. KUNHARDT . . . . . Lawrence, Mass.

C. W. LEONARD . . . . . Boston, Mass.

J. R. MACCOLL . . . . . Pawtucket, R.I.

FRANCIS T. MAXWELL . . . . . Rockville, Conn.

J. F. MAYNARD . . . . . Utica, N.Y.

JOSEPH METCALF . . . . . Holyoke, Mass.

THOMAS OAKES . . . . . Bloomfield, N.J.

CHARLES A. STOTT . . . . . Lowell, Mass.

WILLIAM H. SWEATT . . . . . Boston, Mass.

JOHN P. WOOD . . . . . Philadelphia, Pa.

On the motion of Mr. Hopewell it was voted that the consideration of nominations for the standing committees provided for in the by-laws of the Association on finance, statistics, raw material, and machinery be deferred to the next meeting of the Association. By unanimous vote the Secretary was instructed to cast one ballot for the list of officers as reported by the Nominating Committee. This was done, and Vice-President Clark declared that the gentlemen named in the report of the committee were duly elected officers of the Association for the year 1910.

#### GRATITUDE TO PRESIDENT WHITMAN.

Mr. Hopewell addressed the meeting on the able and devoted service rendered by the President of the Association, Mr. William Whitman, throughout the recent revision of the tariff. Mr. Hopewell proposed that the Association should take the opportunity of the absence of President Whitman to do what he might be unwilling to have done if he were present, and to make formal record of the high appreciation which every member of the Association and American wool manufacturers generally felt toward Mr. Whitman because of his long years of public-spirited service for the welfare of the industry as a whole. Mr. Hopewell moved the following resolution:

*Resolved*, by the National Association of Wool Manufacturers, That it is due to our honored President, Mr. William Whitman, to express to him the heartfelt appreciation of the members of this Association of his wise and untiring leadership throughout the recent revision of the tariff. His broad experience and sound knowledge of economic principles and his very great ability both as manufacturer and merchant were devoted, not only for hours, but for days at a time to the service of our industry in the preparation of its case for presentation in Washington. This was a service which no amount of money could have procured, and it was unselfishly given to the benefit of our entire industry. For all this invaluable work, for his sagacious leadership, and for long years of loyalty to the broad interests for which the National Association stands, we owe to President Whitman our deep and enduring gratitude.

*Resolved*, That these resolutions be entered upon the records of the Association, and that a copy be transmitted to our President.

The resolution was seconded by Mr. Francis T. Maxwell, Treasurer of the Hockanum Company of Rockville, Conn., and unanimously and heartily adopted by the Association.

#### THE ASSOCIATION AND NATIONAL POLICIES.

Mr. J. F. Maynard, President of the Globe Woolen Company of Utica, N.Y., presented the following resolution declaring the attitude of the Association toward national legislation at the present time :

*Resolved*, by the National Association of Wool Manufacturers, That after a year of financial panic and another year of tariff revision, the American people and American business are now fairly entitled to a long period of peace and prosperity.

*Resolved*, That while welcoming and pledging our support to all wholesome and essential reforms, we earnestly deprecate that spirit of radicalism and exaggeration against which President Taft has recently protested as a menace to the welfare of the United States.

*Resolved*, That the new tariff law deserves a fair and honest test in actual operation, both because this is indispensable to a continuance of business confidence and because the country owes to the new National Administration a free hand at this session of Congress for proper consideration of the important legislation which it has recommended.

*Resolved*, That with the entire country demanding peace and stability as a vital guarantee against the business depression, and the reduction of salaries and wages that would inevitably follow a loss of business confidence, all of the actual business interests of the country, setting aside minor differences of opinion, ought now to stand solidly together in the general welfare against all manifestations of the spirit of agitation for the sake of agitation, and of change for the mere sake of change. This is the one cloud in the sky now threatening manufacturer and wage-earner alike.

The resolution was unanimously adopted and on motion of Mr. Hobbs it was voted that copies be sent to the President and Vice-President of the United States and to Senators and Representatives in Congress.

#### GENERAL WILLIAM F. DRAPER.

Mr. Hobbs offered the following resolution on the death of Gen. William F. Draper, long a member of the Association :

*Resolved*, by the National Association of Wool Manufacturers, That



this Association, the great industry for which it stands, and the business life and public life of America have sustained a grievous loss in the death of General William F. Draper of Hopedale, Massachusetts, and of Washington.

*Resolved*, That as a soldier, a man of affairs, a legislator and a diplomatist, General Draper had won a distinction in many fields of effort that it is rarely given to one man to achieve. He had added new luster to an honorable family name, and his career at home and abroad had exemplified the highest and best qualities of American citizenship.

*Resolved*, That the textile industry of the United States is under especial and enduring obligation to General Draper for an extraordinary power of inventive genius which has well-nigh revolutionized some processes of manufacturing, improving the efficiency and reducing the cost of production, to the vast benefit not only of the industry itself but of the country at large. But his ability as an inventor was joined with surpassing skill and wisdom as a business man and an executive. The manufacturers of America could not desire a more accomplished leader and representative of their important calling.

*Resolved*, That we express our lasting gratitude for all of General Draper's crowded and beneficent life, and particularly for the broad information and authority of his many years of championship of the American system of protection. He believed in the protective principle with all the profound conviction that animated his brilliant service to the Union throughout the Civil War. He was in the highest sense a patriot, and his life and work will always remain a proud memory and inspiration to all who have been privileged to know him.

The resolution was adopted by a rising vote.

MR. JOSIAH PERRY.

Mr. George E. Kunhardt of Lawrence offered the following resolution on the death of Mr. Josiah Perry :

*Resolved*, by the National Association of Wool Manufacturers, That we record our sorrow at the death of Josiah Perry of Webster, Massachusetts, for many years a member of this Association, and one of the oldest woolen manufacturers in the United States.

*Resolved*, That the ending of the long, useful, and honorable career of Mr. Perry is a severe loss to the industry to which he had devoted his entire lifetime. He was a fine example of the thoroughness and conscientiousness of the men who laid the foundations of the wool manufacture in New England. His sagacity in business was well matched by his integrity, his generosity, and his public spirit.

*Resolved*, That our tribute to his character be transmitted to his family and duly entered upon the records of the Association.

The resolution was adopted by a rising vote.

## THE FEDERAL CENSUS.

Mr. Edwin Farnham Greene of Boston, Treasurer of the Pacific Mills, offered this resolution, which was duly adopted, in regard to the approaching Federal Census :

*Resolved*, by the National Association of Wool Manufacturers, That the Federal Census which is to be undertaken in the present year deserves the hearty coöperation of the manufacturing interests of the United States, and that we urge especially that the inquiries of the Census Bureau regarding the wool manufacture receive a prompt, full, and exact response from all engaged in the industry. This prompt attention to the inquiries from Washington will enable the Census Bureau to make earlier and more complete returns than have heretofore been possible.

## REVISION OF THE BY-LAWS.

Mr. Hopewell, as Chairman of the special committee on the revision of the by-laws of the Association — a committee the other members of which were Mr. Leonard and Mr. Fletcher — presented a report recommending several changes in these by-laws, and presented a complete new draft. On the motion of Mr. Maynard it was voted to refer the report of the Committee on By-Laws for final action to the next meeting of the Association, the proposed new by-laws, with the report, to be printed and sent to the members at least ten days before the meeting is held. The motion was adopted, with the understanding that the meeting, if possible, should be held within thirty days.

There being no other business the meeting adjourned.

WINTHROP L. MARVIN,  
*Secretary.*

## ANNUAL REPORT OF THE SECRETARY.

*To the Members of the National Association of Wool Manufacturers:*

In obedience to the by-laws of the Association, the Secretary herewith submits his report for the year ending the first Wednesday of February, 1910.

The past twelve months have been notable for a complete revision of the tariff. The Secretary's report for the year preceding, presented at the annual meeting of February 3, 1909, described the preparations that had been made by this Association to represent the interests of our industry before the lawmakers in Washington. In that report the appointment of the special Tariff Committee and the important conference at Chicago between committees of this and of the National Wool Growers Associations were referred to. Because the Association owes a large debt to the earnest and able work of that special Tariff Committee, the gentlemen composing it may well be mentioned again here. They were:

Mr. WILLIAM WHITMAN, *President*  
and *Chairman ex-officio*,

" CHARLES H. HARDING,

" J. R. MACCOLL,

" FRANCIS T. MAXWELL,

" J. F. MAYNARD,

" GEORGE E. KUNHARDT,

" THOMAS OAKES,

Mr. JOHN HOPEWELL,

" WALTER ERBEN,

" EDWIN FARNHAM GREENE,

" LOUIS B. GOODALL,

" FREDERIC S. CLARK,

" JOHN P. WOOD,

" N. T. FOLWELL,

" JOSEPH R. GRUNDY.

All of the important steps in the preparation of the case for this industry before Congress were passed upon and approved by this committee, and its members were remarkably constant in their attendance upon their duties at all the meetings held, whether in Boston, New York, or Washington.

The preparation and enactment of the new tariff are now a matter of history. The principal facts so far as they affect our industry were set forth in a special report which the

Secretary prepared for the September Bulletin, a few weeks after the tariff-making was completed. It is therefore not necessary to make a long statement here. The Association had begun its tariff campaign by sending letters of inquiry to all of the hundreds of wool manufacturers in the United States, requesting that they transmit to us their ideas as to the policy that should be pursued by this Association. An overwhelming majority, indeed almost all, of the manufacturers responded that they preferred that Schedule K should remain substantially unchanged. That, therefore, was the gist of our recommendation in Washington, and that is the character of the new Schedule K of the present law. Doubtless the schedule is not perfect, but all practical manufacturers, even those who would prefer to have it altered in some details here or there, realize that the indiscriminate abuse which has been heaped upon it by the enemies of all protection is not merited, and that in its main construction it is an honest and efficient law.

There will be violent verbal attacks upon the whole new tariff in Washington this winter, but the policy of the National Administration and of the leaders of Senate and House has been authoritatively proclaimed. The new law will be given a fair and thorough trial, so that its virtues and defects may have conclusive demonstration, and no general revision will be consented to or attempted for several years to come.

One notable feature of the year in which all members of this Association heartily rejoice is the new and broad prosperity that has come to the carded woolen branch of the manufacturing industry. Fashion has once more approved carded woolen fabrics, and these goods are in strong demand, so that a great amount of machinery that has been wholly or partly idle is again in profitable operation. The National Association of Wool Manufacturers is composed of carded woolen as well as of worsted manufacturers, and is devoted to and delighted by the success of both. There is not a member of this Association who does not earnestly wish that

this marked improvement in carded woolen activity may continue.

The year has been a reasonably prosperous one for the entire trade. What our industry and indeed the entire country now require is a period of peace and rest from agitation of all kinds, after the anxiety and stress of the late financial panic and tariff revision.

This present is the Federal census year, but because the elaborate Federal reports are necessarily delayed it has seemed best for this Association to initiate an inquiry of its own into the conditions of the wool manufacture in America. With this end in view, circulars making inquiries have been sent to 1,952 wool manufacturing establishments, including those without as well as within this Association, and more or less complete reports have already been received from a large majority of those establishments that are in actual operation.

It has not yet been possible to tabulate any of the returns, for the inquiries are not yet complete in any department, but the care and promptness with which American manufacturers have replied are very gratifying to the officers of the Association. Most of the concerns that have not yet reported are very small indeed, while the great majority of the important mills of the country had sent in their replies within a very few weeks of receiving the circulars of inquiry. When this work is finished the National Association of Wool Manufacturers will be in the possession of a fuller knowledge of its industry than has ever before been attained. It need scarcely be said that individual replies in every case are held in the strictest confidence, and that only complete, general returns will be published.

It is the plan of the officers and Executive Committee to have the annual banquet of the Association in Boston some time in the early autumn, when it is hoped that distinguished public men may be present, as guests and speakers before the Association, from Washington. We have been in communication with our prospective visitors, and have been assured that they desire to come.

The business affairs of the Association have received close attention during the past year. Important new accessions have been made to our membership, and our resources have been so increased that it may fairly be said that never before in its long history of forty-five years has the National Association represented such great interests and possessed such strength for vigorous and aggressive work as now.

All of which is respectfully submitted.

WINTHROP L. MARVIN,  
*Secretary.*

BOSTON, February 2, 1910.



## THE NEED OF MORE WOOL.

ALL over the world the question of an adequate supply of wool is now arousing deep concern—for the wool of the world does not keep pace with the increase of the wool-using population. If this question is a peculiarly vital one to America, it is because America is the most active and progressive of wool manufacturing nations. A great many American wool manufacturers will heartily applaud the sentiments set forth in a recent significant letter to Secretary Wilson, of the Department of Agriculture, by Mr. William M. Wood of Boston, President of the American Woolen Company:

AMERICAN WOOLEN COMPANY.

BOSTON, MASS., January 28, 1910.

HON. JAMES WILSON, *Secretary*,

Department of Agriculture, Washington, D.C.:

DEAR SIR: With all the noble work that your great Department is doing, cannot some more time and attention be devoted to the increase of the number of sheep and the wool clip of the United States? We manufacturers want to use American wool, but we have increased difficulty in securing enough for our purposes. The imports of last year were twice the imports of the year before, and the American wool production rose only from 311,000,000 to 328,000,000 pounds.

There are 258 sheep to the square mile in the United Kingdom, and there are only 9.6 sheep to the square mile in New England. Here is a condition which is well worth the while of your Department to take some vigorous measures to equalize. Our New England hills are certainly as well adapted to the growth of sheep as the hills of Old England and Scotland. There is a great market for mutton here in the New England States, and an immense industry of manufacturing. But we cannot get enough American wool, and we prefer American wool and would use a very much greater quantity if we could secure it.



Just consider these significant figures of the number of sheep and the wool production in New England in 1891 and 1909:

	1891.		1909.	
	Sheep.	Wool.	Sheep.	Wool.
		<i>Pounds.</i>		<i>Pounds.</i>
Maine .....	547,670	3,286,020	210,000	1,260,000
New Hampshire .....	183,183	1,099,098	70,000	434,000
Vermont .....	351,249	2,458,743	180,000	1,170,000
Massachusetts .....	55,965	335,790	35,000	210,000
Rhode Island .....	20,433	122,598	7,500	39,750
Connecticut .....	45,824	229,120	38,000	190,000
Total New England,	1,204,324	7,531,369	540,500	3,303,750

We have lost one-half of our sheep in New England since 1891, and one-half of our wool production. There has been some increase in the regions further West, but that gain has not been so large as it ought to be and there ought not to have been any reduction in New England. If proportionately to the area there were as many sheep in New England as there are in the United Kingdom, instead of 540,500 we should now have 15,000,000 sheep grazing on our northern hills. What this would mean in the way of advantage to American manufacturing, the improvement of the land, and direct and indirect benefits to New England agriculture you can readily grasp. The valuable report on the sheep industry issued by your Department in 1892 well says:

The Americans have yet much to learn in the science of farming, and England is a good object lesson. Old English farms which have been tilled for centuries show no signs of running out or of old age. They produce five times the amount of wheat per acre that they did three hundred years ago, and they are constantly increasing in productiveness. British writers and farmers declare that "the sheep is literally the basis of English husbandry; that they have become an indispensable necessity, as there is no other means of keeping up the land."

In the West Riding of Yorkshire, the great and ancient seat of English wool manufacture, there are now kept 730,000 sheep, producing four and one-quarter million pounds of wool, or more

sheep and wool than we have in all New England. If our British kinsmen can do these things, why cannot we?

I am very sure that all American wool manufacturers will heartily coöperate with you and your Department in any effort to increase the number of sheep not only in New England but throughout the country. Nobody desires to send good American money abroad for wool if that wool can be procured at home. The Department of Agriculture has accomplished wonders through its scientific inquiries and wise, practical counsel to American farmers. Here in the sheep and wool industry is another splendid opportunity for the Department to justify the enlightened statesmanship which has made it one of the great progressive branches of the Government.

Very truly yours,

WM. M. WOOD,  
*President.*

President Wood's letter brought a reply, indicating full interest and sympathy, from Secretary Wilson. The Department of Agriculture can be depended on to do its share toward stimulating the development of the wool-growing industry of the United States. Doubtless the subject will receive constant and increasing attention from the experts of the Department during the present year. The Department even now emphasizes the fact that a considerable expansion is in progress in the number of American sheep, but that the area in which there is the greatest need of growth is on the unused but available hillsides of New England.

Mr. Wood is not the only American manufacturer who is emphasizing the need of a larger domestic production of wool to meet the increasing demands of a prosperous people and of high standards of comfort and of living. In a letter to the "Ohio Farmer," Mr. George H. Hodgson, the General Manager of the Cleveland Worsted Mills Company, a great representative Middle Western manufacturing concern, says:

I consider the wool tariff justifiable for the protection of the farmers and wool growers in the far west so long as we

have a protective tariff to raise revenues and taxes. If the tariff was taken off or reduced very much it would largely benefit the foreign grower, who would immediately raise his prices, as a large percentage of the wool raised in this country would immediately drop. In my judgment, 50 per cent of the sheep now kept for wool would be slaughtered, as was evidenced under the Wilson bill, from which the sheep industry has never recovered to this day.

You ask why, when the tariff was reinstated did we not keep pace with the consumption? Because all States east of Illinois never went back to sheep raising again for wool purposes, as they found cattle much more profitable and easier to sell, with less fluctuations and risk, than the wool.

Further, it is a matter of history all over the world that as population increases in any particular section, sheep raising decreases. One example to emphasize this fact is the so-called great wool-growing State of Ohio, which, before the Wilson bill was made a law, used to contribute nearly 25,000,000 pounds of wool yearly, and now contributes only a little over 10,000,000 pounds, and practically all the Eastern and Middle Western States have dropped off more or less in proportion, with the result that the far west had to increase; but as yet, while there is some increase in production, it has not got back to normal.

I give you two illustrations of the States that have increased most in the far west:

	Produced in	
	1896.	1908.
Idaho .....	7,300,515 lbs.	17,500,000 lbs.
Wyoming .....	10,369,134 "	36,000,000 "

It must not be understood that this ratio of increase goes all the way through; I merely mention two of the largest. Some of the States have not got back to producing what they did in wool before the Wilson bill went into effect.

It is questionable up to five years ago if any money was made in growing wool in the far west, as the wool was sold at an average price of 14 to 17 cents per pound, and last year it was sold at 18 to 22½ cents per pound. The wools referred to will shrink from 55 to 60 per cent and cost 2 cents per pound to get to the eastern markets, where they are largely used.

It is well to remember one very important fact in connection with the wool business of this country. To-day we are raising only 50 per cent of what we are using. The con-

sumption is getting larger, so that every effort should be made to encourage the raising of more sheep in this country, so that as time goes on we may become less dependent on the foreigner. If not, should this country ever go to war with any large foreign nation, for any long period of time, cloth products made from wool would surely rise to very high prices, as wool would become a contraband of war, and the fact that we have to import half of it means that we import every year about two hundred million pounds.

Below I give you the number of sheep raised in this country before the Wilson tariff was enacted and the production of wool:

In 1893 there were 47,273,553 sheep raised, which gave 348,558,138 pounds of wool.

In 1897, the last year of the Wilson bill, these figures dropped to 34,734,287 sheep and the wool to 259,153,251 pounds.

There has been a steady but slow increase from 1897 up to 1908, so that in the latter year, 1908, we raised 40,311,548 sheep and produced 311,138,321 pounds of wool.

I venture to predict that if the tariff agitation was stopped we would in a year or two go back again to where we were before the Wilson bill struck us, so that our farmers and sheep raisers would have confidence in the future.

Another representative manufacturer, Mr. Joseph R. Grundy, of William H. Grundy & Company of Philadelphia, has written to Mr. Wood approvingly, as follows:

Office of  
WM. H. GRUNDY & Co.  
Worsted Spinners.

BRISTOL, PA., February 7, 1910.

MR. WILLIAM M. WOOD, *President*,

American Woolen Company, Boston, Mass.

DEAR MR. WOOD: I read in the "Textile Manufacturers Journal," under date of February 5, your letter addressed to Secretary Wilson of the Department of Agriculture at Washington.

Your letter to the Secretary I think was most opportune and excellent in every particular, and is exactly in line with what has been in my mind for some considerable time. I was so much interested in the proposition looking to an increase in the American clip of wool in harmony with the rapidly increasing Amer-

ican requirements that I attended recently the National Wool Growers Convention at Ogden, Utah, in company with Congressman Cole of Ohio, for the purpose of having him, in his public addresses both at Cheyenne and Ogden, lay great stress on the importance of this proposition. In the resolutions adopted at the meeting of the National Association at Ogden we had written in the enclosed section bearing upon the great importance of nationalizing the wool industry, and your letter to the Secretary is exactly in line with the work we were endeavoring to get done in conjunction with the National Association of Growers.

The subject upon which you wrote the Secretary of Agriculture is one which has already been taken up with him by several members of Congress, and in which he has expressed himself as being in thorough sympathy. I think that with all the agitation now going on looking to the importance of the increased food supply and increased production of agriculture, the time is ripe to successfully agitate in the direction of enlarging the wool clip of the country. This enlargement, as you very truthfully outline, is much desired by all of us engaged in the industry and should, with a little direction by those engaged in the industry as well as the Department of Agriculture, be successfully brought about.

Again congratulating you upon your very timely words spoken in behalf of this important subject, permit me to remain, with best personal regards,

Very truly yours,

JOSEPH R. GRUNDY.

The resolutions of the National Wool Growers Association referred to by Mr. Grundy are quoted elsewhere in the Bulletin.

The present prices of wool and the demand for lamb and mutton ought to make it possible to restock many of the middle western and New England farms, where sheep growing was once a prosperous industry. The business is one that requires intelligent care and large, special knowledge. It is not one of the hit-or-miss, easy-going forms of agriculture. But the present discussion of the subject will draw anew the attention of practical farmers to a profitable opportunity, of interest not only to the farmers themselves but to outsiders

seeking a reasonably safe and more than usually lucrative investment.

Already in New England there is a manifest drift of capital toward sheep farms. One instance is an enterprise in Leominster, Mass., where an area of about 700 acres has been secured for the purpose of sheep farming on a considerable scale. This undertaking is said to be in the hands of capable and experienced men who have acquired additional land recently, and are planning to control ultimately a flock of 10,000 sheep properly distributed. There is a quickening of interest in expert sheep raising among the Berkshire Hills, where old, abandoned mountain farms are being converted into ranges.

Mr. Theodore Justice, of Justice, Bateman & Company of Philadelphia, brings out clearly in the following statement the laggard wool production of the world:

The wool production of the world is on the retrograde, as will be shown by the following table, the slight gain in the Southern Hemisphere being less than the larger decrease in the Northern Hemisphere:



## WORLD'S WOOL PRODUCTION IN 1894 AND 1906 COMPARED.

	A—1894.	B—1906.	Decrease.	Increase.	Per Cent of	
					Decrease.	Increase.
Europe .....	897,231,061 lbs.	804,288,000 lbs.	92,943,061 lbs.	.....	10 $\frac{3}{4}$ %	
North America .....	342,210,712 "	318,748,000 "	23,462,712 "	.....	7 %	9.7%
South America .....	397,970,000 "	436,716,000 "	.....	38,746,000 lbs.	.....	
Asia .....	258,050,000 "	210,339,000 "	47,761,000 "	.....	18 $\frac{1}{2}$ %	
Australasia .....	668,600,000 "	695,565,000 "	.....	31,965,000 "	.....	4.8%
Africa .....	131,925,000 "	139,702,000 "	.....	7,777,000 "	.....	5.9%
	<u>2,692,986,773 lbs.</u>	<u>2,605,418,000 lbs.</u>	<u>87,568,773 lbs.</u>	<u>Net decrease.</u>	<u>3<math>\frac{1}{4}</math>%</u>	

A—From figures of the National Association of Wool Manufacturers.

B—From the Year Book of the Department of Agriculture.



Very few persons realize how few sheep there are and how little wool there is in the world in proportion to the population. If the world's total supply of 577,000,000 sheep were all eaten there would be only three-eighths of a sheep for each person, and if its annual wool production, 2,600,000,000 pounds, was evenly distributed the allotment would be only 1 7-10 pounds for each person.

As the people of the United States consume annually over 6 pounds of wool per capita, the importance of maintaining the domestic supply is apparent.

The proportion of domestic wool produced, when reduced to scoured, is 46½ per cent of the total supply, and the proportion of imported wool is 53¾ per cent. This will be apparent by an examination of the following table:

TABLE SHOWING THE PERCENTAGE OF YIELD OF SCOURED WOOL READY FOR THE CARDS IN DOMESTIC AND IMPORTED WOOL.

*Fiscal year ending June 30, 1909.*

Imported. <sup>1</sup>	Pounds.	Shrinkage.	Pounds Scoured.	Proportion of Total Supply.
	Grease Wool.	Per Cent.	Yield.	
First class .....	142,581,000	42	82,697,000	....
Second class .....	21,952,000	30	15,366,000	....
Third class.....	101,876,000	34	67,238,000	....
Total .....	266,409,000	..	165,301,000	53¾%
Domestic clip, 1909, including pulled ...	328,110,749	60	142,223,785	46½%

<sup>1</sup> Fiscal year ending June 30, 1909.

How much sheep have decreased throughout the world and the population increased will be evident by an examination of the following table:

TABLE OF COMPARISON BETWEEN THE WORLD'S WOOL DECREASE AND POPULATION INCREASE SINCE 1894.

Year.	World's Wool Clip.	Decrease Per Cent.	World's Population.	Increase Per Cent.
1894.....	2,692,986,773	.....	1,497,000,000	.
1906 <sup>1</sup> .....	2,605,418,000	34%	1,542,000,000	3%

<sup>1</sup> See Year Book, Department of Agriculture, 1908.

The population of the United States has increased 29 per cent since 1894, when the world's wool supply had reached the maximum, while wool production has increased only 1 per cent during that time. Recovery from the damage inflicted upon the wool-growing industry by the free wool experiment of the Wilson tariff act has only just taken place, and in order to realize how wide apart wool production and population will be, with any further mischievous experiments with tariff reduction, one has only to examine the following table :

TABLE OF COMPARISON BETWEEN UNITED STATES WOOL AND POPULATION INCREASE SINCE 1894.

Year.	United States Wool Clip.	Increase Per Cent.	United States Population.	Increase Per Cent.
1894.....	325,200,000 lbs.	.....	67,600,000	
1909.....	328,110,749 "	1	87,200,000	29

As has been shown in the table giving the world's wool production in 1894 and 1906 compared, the continent of North America produces 7 per cent less wool than it did in 1894. This is because of the destruction of sheep in the United States during the free wool experiment of President Cleveland's last term.

Under the Dingley act there has been an increase of 46 per cent in the number of sheep and lambs, although the wool production of the continent of North America is still 7 per cent below where it was in 1894, before the free wool experiment was tried. Europe's wool production now is 10½ per cent below 1894. Asia, with the cheapest labor in the whole world, is now more than 18 per cent below.

It is most unfortunate for the preservation of the world's wool supply that the world is entirely too prodigal in its use of mutton. The table showing the world's wool production in 1894 and 1906 compared shows the result of eating sheep faster than they are being produced.

In Great Britain and Ireland, with a mild winter climate owing to the influence of the Gulf stream and abundant winter pasture, there are 6 per cent less sheep than there were in 1894; Italy now has 25 per cent less than then; Austria-Hungary, 27 per cent less; France, 27½ per cent less; Spain, the home of the merino sheep, has 49 per cent less;

Turkey in Europe, where the labor cost of growing wool is perhaps the lowest in Europe, has 54 per cent less than in 1894, and Germany, 54 per cent less than then.

These nations are all without a tariff protection for their wool and sheep, and wool production there is taking the same course that it took in the United States under the free wool Wilson tariff act. If these European countries, with their cheap labor, cannot compete with the advantages of perennial pasture possessed by the thinly populated and pastoral countries of Australasia, South America, and South Africa, which are the only wool-producing continents that do not to-day have less wool than they had in 1894, it takes very little intelligence to understand what will occur in the United States if the assault now threatened to the wool industry is allowed to make further headway.

The opportunity and the duty of the sheep growers to increase the volume of their product are being frankly acknowledged by the sheep growers themselves. At the recent annual convention of the National Wool Growers Association in Ogden, Utah, Mr. A. J. Knollin of Chicago, eastern vice-president of the Association, delivered a thoughtful address on this subject.

Mr. Knollin said in part:

East of the Missouri and Mississippi rivers, with the farming States of Kansas and Nebraska added, we have about 18,000,000 sheep, one-third of the entire number in the United States. In this territory, Ohio leads, having 3,110,000, seventy-six to the square mile. Florida — one-third larger than Ohio — has one and one-half sheep to the square mile, while Kansas, a State well adapted to sheep husbandry, and twice the size of Ohio, has less than three sheep to the square mile. You have in Utah and Idaho thirty-eight sheep to the square mile, one-half the average of Ohio, and about three times as many as we average in the territory under consideration. You will further appreciate the possibilities of the development of sheep and wool growing in the east when you know that we have but one sheep to forty-seven acres, and more so when you are told that if Kansas, Nebraska, and Iowa had the same number per square mile as Ohio, they, with Ohio, would support the 18,000,000 sheep now in the entire section.

I will further illustrate the possibilities of sheep raising by

comparison with other countries. France and Spain, each having an area equal to about four-fifths that of Texas, have, respectively, 17,500,000 and 13,750,000 of sheep. Texas has 2,000,000. Bulgaria, with an area but little less than that of Kentucky, has 8,000,000. Kentucky has 1,000,000. Greece, that very small country, which we associate with art and literature, rather than with shepherds and their flocks, has 4,500,000 sheep on its 25,000 square miles. West Virginia has the same area, and has but 625,000. The comparison is even more startling when we consider that England and Scotland have 304 sheep to the square mile, whereas Kansas, as I have already mentioned, has less than three to the square mile. If we desired to stock the State of Kansas with sixty sheep to each quarter section, after driving into that State all the sheep from the other States in this eastern territory, we would be obliged to go after the 2,000,000 sheep of Texas to complete the required number.

I think we may accept two facts without question: First, that increase of sheep and wool production on farms is possible; second, that it is desirable. And, therefore, we may, with profit, consider how it may be brought about. First in importance, stability is necessary, and an industry that can be depended upon to yield reasonable profits from year to year will be developed. Second in importance, I will place knowledge. Without a clear perception of what we are endeavoring to do no business can be mastered. The stability of our sheep and wool industry can only be maintained by a permanent protective tariff—a tariff that protects the crossbreds and lower grades of wool, the wool of the mutton sheep, as well as the fine and medium wool, for the reason that the combination wool and mutton sheep gives larger returns, and unless sheep are profitable to handle, our farmers put them aside for other things not requiring such careful attention. From 1893 to 1908 flocks in our eastern States were greatly reduced by the Wilson tariff act, operative from 1894 to 1897, and since then by the importation of great quantities of wool of the third class, which is admitted at a much lower rate of duty than wool of the first and second class. The lower grades of wool, you understand, come from sheep of the mutton breeds and cross-breeds such as you in the west are raising in greater proportion from year to year, so that your interest is involved, as well as that of the eastern farmer, who depends upon the dual purpose sheep for greater profit.

And there is another reason for the encouragement and

protection of the sheep industry in the United States, of even greater importance. Sheep are not only conservators of our natural resources, regarding which we have heard so much of late, but they enrich the soil and increase its productiveness. Sheep and clover are what are needed to restore fertility to the abandoned farms of New England, and to maintain the productiveness of our middle and western States. For this reason, as well as to produce at home wool that we now import to the value of \$50,000,000 annually, and for the increased mutton supply which we must have, we should in every possible way encourage sheep husbandry.

If we are unable to furnish wool and mutton to meet the requirements of our people, they will be brought from foreign countries. We need have no fear of oversupplied markets from home production. If we wish to enjoy the remunerative prices which now obtain we must supply the demand. When values increase beyond the purchasing power of our people, reduction of protective tariffs and free entrance of these necessities will be demanded. We should insist that sheep husbandry as an aid to the conservation of our natural resources be given the consideration due its importance to the welfare and enrichment of the nation.

The tariff gives American wool growers a fair degree of protection against external competition. This is one great reason why wool growing is on the increase in the United States, instead of on the decrease, as in the United Kingdom and most of the countries of Europe. But even with this favoring condition there is further need of the active coöperation of the Department of Agriculture and of vigilant and aggressive private enterprise. If a part of the money that is being put into speculative mining schemes and other more or less visionary projects were devoted to the restocking of our farms with sheep and to the full utilization of the great ranges of the far west, the resultant profit would be a surer one and in the long run unquestionably a greater.



## ANNUAL CONVENTION OF THE NATIONAL WOOL GROWERS ASSOCIATION.

THE forty-sixth annual convention of the National Wool Growers Association, which was organized in the same year with the National Association of Wool Manufacturers, was held in Ogden, Utah, on January 6, 7, and 8, 1910. In connection with the convention there was a mid-winter sheep show, with a great many exhibits of high quality, covering a wide range. The convention and the sheep show attracted a large gathering of representative sheep men from all over the country, and the sessions of the convention developed much interest and enthusiasm.

President Fred W. Gooding in his annual address spoke of the satisfactory adjustment of the wool and woolen tariff in the Aldrich-Payne law. There was a general misunderstanding, he said, among the people of the United States, some of them in high places, over the wool phase of the tariff question. Even President Taft in his Winona speech expressed this. People have assumed that the cause of high prices was the high duty on wool; whereas it has repeatedly been explained that if the raw wool was given to the manufacturer it would not make more than about two dollars difference in the price of an average suit of clothing, and of other woolen goods in proportion. Merchants and others handling woolen goods were largely responsible for this misunderstanding. It should be the duty of the Association to be prepared at all times to fight any effort to lower the duty on wool. In that connection a permanent press bureau and department of statistics should be established, so that the people in general could be educated to a thorough knowledge of the truth.

During the year 1909 about 7,000,000 pounds of wool were shipped to the newly established National Wool Warehouse in Chicago. A large part of this wool was sold at prices as high as any obtained that year. The company had been fortunate in securing President Cosgriff, one of the

principal wool growers of the West, to assume the management and control of the corporation. Through his efforts the National Wool Warehouse had in a short time been placed on a solid business foundation, and its finances were in a satisfactory condition.

The continued success of the National Wool Warehouse depended entirely on the wool growers themselves. And it was not only those wool growers who were stockholders or who shipped their wool to the warehouse who were beneficiaries by reason of its existence, but practically every wool producer who sold his wool clip after the organization was determined on owed a portion of the fair price received to the fact of the existence of the National Wool Warehouse Company.

One of the most important reforms that the Association should attempt to secure was an amendment of the thirty-six-hour law, so that a sixteen mile an hour speed provision for trains loaded with livestock should be adopted at the present session of Congress. Secretary Wilson of the Department of Agriculture was willing to assist in securing that important measure. A shrinkage of from two to four pounds on each sheep could easily be lost by reason of a poor run.

The Association had never opposed the policy of conservation through the creation of national forest reserves, but it had opposed certain rules and regulations that were deemed unwise and unjust to the great stock industry of the United States. The judgment of incompetent forest rangers in control of the national forests, as to the carrying capacity of the great ranges lying within the national reserves, had been the principal bone of contention between the stockmen and the Forestry Bureau. A better understanding was being brought about between the Forestry Bureau and the stockmen using the forestry ranges. The appointment of advisory boards by the stockmen for consultation with the supervisors of the different reserves seemed to be working in a satisfactory manner. A law should be passed authorizing the President of the United States to appoint a committee of five from



among the members of the great stock associations, whose opinions should be given equal weight with those of the forestry officials.

The National Wool Growers Association should be better organized than it was to-day. If we wished to protect ourselves against adverse tariff legislation, we must get into politics. If we wished railroad legislation of a minimum speed limit law, we must get it through members of Congress. If we wanted changes in our forestry policy and so with almost everything—it could be secured only through the exercise of political influence.

#### REPORT OF THE SECRETARY.

Secretary George S. Walker of the National Wool Growers Association, in his annual report urged that provision be made for the establishment of a wool tariff publicity bureau to enlighten the wool-consuming public in regard to the growing and manufacture of wool, and especially the actual workings of the Aldrich-Payne wool and woolen schedule. The Eastern press was teeming with the arguments of those who sought free wool, and they had the sympathy of a percentage of the public and even of the Congressmen.

When compared with the rates charged for transporting fruit and other perishable merchandise, the rates on wool to the Eastern markets were excessive and extremely burdensome. There was no justice in charging the wool growers as much as and in some instances more for transporting a carload of wool from Utah, Idaho, and Montana to the Atlantic seaboard than was charged for hauling a car of fruit from the Pacific coast to New York and Boston. A car of fruit when transported in the winter must be run into the round-houses at division terminals, and handled on passenger-train time, but a carload of wool was thrown in with coal and ore and other "dead freight," requiring months in some instances to reach its destination. A committee of three should be appointed, to be known as the Committee on Freight Rates and Transportation Facilities, and instructed

to coöperate in an effort to secure a readjustment of rates and necessary improvements in transportation.

The losses from wild beasts among the Western sheep had been growing from year to year, and the wolf and coyote had steadily increased in numbers. Some decisive action against these predatory beasts should be taken by the securing of uniform bounty laws in the several States, and a Federal law for the extermination of wolves, coyotes, and mountain lions.

The National Wool Growers Association had steadily grown in strength and influence, and now numbered more than 8,000 members.

#### SPEECH OF CONGRESSMAN COLE.

Representative Ralph D. Cole of the Eighth Ohio District, who had very ably championed the wool-growing interests in Congress, addressed the convention and was given a most hearty reception. Mr. Cole reviewed the wool tariff legislation from 1883 onward, pointing out the injury done to wool growing in the United States by erroneous classification under the law of 1883, which let in the equivalent of 100,000,000 pounds of Western wool at about three cents a pound protection. He eulogized William McKinley as one of the greatest friends the American wool growers had ever had in Congress. Every time in the history of the country that there was less than eleven cents protection on raw wool the industry had gone back, and every time there had been eleven cents or more it had gone forward. That seemed to be the line of demarkation. That measured the difference in cost of production abroad and the cost here in the United States.

Free trade would destroy the flocks of the United States. Your flocks destroyed, what percentage of the output of the world have you destroyed? One-eighth. You destroy one-eighth of the wool of the world at the present time, when the output of every other nation was decreasing, and the price would be practically the same as it was at present.

You would have destroyed the flocks of the American wool grower and given the American consumer no benefit.

The production of wool in the United States must be nationalized. Not during the next one hundred years would the American production of wool overtake the increasing consumption. The great objection made in Congress was that the wool tariff had not stimulated the industry; that we were not producing enough wool in the United States, and that we must increase the production. That was a fact, that was a great problem that rested upon the shoulders of the American farmer and the American producer. The increased production of wool was only one phase of the great problem of supplying American consumption.

#### RESOLUTIONS OF THE WOOL GROWERS.

On the tariff the resolutions adopted by the National Wool Growers Association said:

Our industry having received the recognition due its importance in the protection afforded it by the recently enacted Payne-Aldrich tariff law, and fully realizing that nothing so quickly demoralizes sheep husbandry as tariff tinkering, we therefore strongly oppose any attempt by any one whomsoever to amend schedule "K." We express our appreciation to all members of the United States Senate and Congress who so earnestly worked for the legislation so necessary to make wool growing with profit possible to the flockmasters of this nation. And especially do we commend Hon. Theodore Justice for his valuable assistance in bringing about this condition.

We recommend that the National Wool Growers Association employ every means within its power to encourage the future development of the wool industry in the United States. Production should be fostered in all sections of the country and the industry nationalized.

Nothing would do more to encourage the industry on range and farm than to impart a feeling of confidence and certainty in our ability to protect ourselves against unwise legislation and adverse conditions.

The United States is the greatest wool-using market of the world and it is therefore the duty of the National Wool

Growers Association to exert every possible effort to supply the ever increasing demand of our country's consumption of this staple product.

On the subject of conservation the resolutions stated :

Being at all times in full accord with any policies having for their purpose the conservation and development of our natural resources we are desirous of according to the promotion of such policies our hearty coöperation, realizing that future generations, as well as we of the present, will enjoy the fruits resulting therefrom.

Therefore we take this position that the government authorities in promoting their policy of the conservation of the natural resources of the country cannot accomplish greater results in any way more satisfactory to the people than by inviting the coöperation of those concerned. The regulations of the forestry service, which our experience has taught us are established more on theory than on knowledge, have worked untold hardships and annoyance to our industry and have been productive of severe but just criticism of forest service administration. This has been brought about by the enforcement of regulations unsuitable to the proper and profitable conduct of the business, and we think the mistakes of the past can be avoided if men of experience in handling sheep on the range are brought into conference with the forestry service. Therefore we insist upon equal consideration with the forestry officials in the formulation of the rules and regulations that shall obtain in the management of forest reserves.

We condemn the practice of the forestry service in imposing burdensome fines without giving the party fined a trial before a court of competent jurisdiction. The principle is un-American and tyrannical. This practice makes the supervisor the party injured, the judge and the jury.

Certain lands in the national forest that are unsuitable for cattle grazing are closed to the grazing of sheep. Such a policy is a detriment to the sheep industry and of no benefit to the cattle owners and a considerable loss to the Government in grazing fees. We demand that such lands in forest reserves as are not required for cattle and horses be thrown open for the grazing of sheep in order that the number of livestock may be increased and the situation very much relieved, with reference to the increasing shortage of meat products.

We recommend that the secretary of agriculture have an investigation made by experienced men that the thousands of dollars worth of summer feed now going to waste on the forest reserves may be made use of by the stockmen of the surrounding country.

We extend Honorable Secretary Wilson of the Department of Agriculture our sincere thanks for his visit to the west during the past year to meet the users of the national forest reserves. This visit has already done much to bring about a better feeling between the forest supervisors and the users of the reserves.

We sincerely hope that Secretary Wilson will take a firm hold of the great conservation policies of our natural reserves. For we believe it only needs the application of good common sense along broad business lines to make it all that the people hope for — a blessing to this and future generations.



## NEW BY-LAWS OF THE ASSOCIATION.

At a special meeting of the National Association of Wool Manufacturers, held in the Parker House in Boston, on March 1, 1910, the new by-laws of the Association, proposed by a committee consisting of Mr. John Hopewell, Mr. Charles W. Leonard, and Mr. Frederick C. Fletcher, were considered article by article and then adopted by unanimous vote. The report of this committee was presented at the annual meeting of the Association, held on February 2, 1910, but it was requisite under the old by-laws that final action should be deferred to a subsequent meeting. The new by-laws, it is believed, represent a gain in business-like efficiency, while properly safeguarding the interests of the Association. The by-laws are as follows :

## SECTION I.

*Members and their Election.*

1. Any person, firm or corporation, approved by the Executive Committee and connected with or interested in the wool manufacture of the United States, may become a member of the National Association of Wool Manufacturers.

2. The Association, at any duly called and organized meeting, may elect corresponding and honorary members whose names have been proposed by the Executive Committee.

3. Every manufacturing concern holding membership in this Association shall be represented in the business of the Association by one person ; that is to say, the proprietor if the concern is of individual ownership, one member of the firm if the concern is a partnership, or the president, vice-president, treasurer or general manager if the concern is a corporation.

4. Immediately after the first of January of each year every concern holding membership in this Association shall report to the Secretary the total amount of wages paid by it during the preceding year, not including, however, the salaries of executive officers, office employees or salesmen or the wages of those employees engaged exclusively in repair shops. The Executive Committee shall then levy an assessment upon the aggregate of the wages paid as thus reported (not to exceed, however, in the case of any one establishment one-twentieth of one per cent of the wages paid by it), sufficient to create the necessary income for the requirements of the Association during the current year. Every member of the Association holding membership as an individual and not on behalf of a manufacturing concern shall pay an annual assessment of twenty-five dollars. All assess-

ments are payable to the Secretary in advance on the fifteenth day of February of each year.

5. Any member who shall have paid his assessments in full may withdraw from membership by giving written notice thereof to the Secretary.

## SECTION II.

### *Officers and their Election.*

1. The officers of this Association shall consist of a President, three Vice-Presidents, a Secretary, a Treasurer, and an Executive Committee of twenty-one members in addition to those who are ex-officio members of the committee.

2. All of the officers of this Association shall be annually elected by ballot, at the annual meeting, at such place as the Executive Committee may appoint, the vote of a majority of the members present being necessary to effect an election; and these officers thus elected shall continue in office for the term of one year, or until their successors are elected and duly qualified to take their places. Vacancies in these offices occurring during the year may be filled by the Executive Committee. The President shall each year appoint a Nominating Committee which shall select a list of nominees for the various offices in time to have the list mailed to the address of each member of the Association when the notice of the annual meeting is sent out, which must be at least ten days before the time fixed for the meeting.

## SECTION III.

### *Meetings of the Association.*

1. There shall be an annual meeting of this Association, for the choice of officers and the transaction of other business, on the first Wednesday of February, at such place as the Executive Committee may appoint.

2. Special meetings may be called by the President, or upon the written application to the Secretary of ten members of the Association; notice thereof to be given in the same manner as for the annual meetings. It shall require ten members present at any meeting to constitute a quorum for the transaction of business; in the case of there not being a quorum the meeting shall be adjourned by the presiding officer.

## SECTION IV.

### *Duties of Officers.*

1. The President, who shall be ex-officio Chairman of the Executive Committee, shall preside at all meetings of the Association, and in his absence the duties of the President shall devolve upon the senior Vice-President present; the Vice-Presidents



shall be ex-officio members of the Executive Committee; and the President or one of the Vice-Presidents shall audit and sign the annual accounts of the Treasurer.

2. The Treasurer, who shall be ex-officio a member of the Executive Committee, shall keep an account of all moneys received and expended for the use of the Association, and shall incur no indebtedness beyond the routine expenses of the Association without authority from the Executive Committee.

3. It shall be the duty of the Secretary to give notice of and attend all meetings of the Association, and of the Executive Committee, and to keep a record of their doings; to conduct all correspondence, and carry into execution all orders, votes, and resolves not otherwise committed; to keep a list of the members of the Association, collect the assessments, and pay them over to the Treasurer; to notify officers and members of the Association of their election; to notify members of their appointment on committees, to furnish the chairman of each committee with the copy of the vote under which the committee is appointed, and at his request, to give notice of the meetings of the committee; to prepare, under the direction of the Executive Committee, an annual report of the transactions and condition of the Association; and, generally, to devote his best efforts to forwarding the business and advancing the interests of the Association.

4. The Executive Committee shall have the immediate charge and administration of the affairs of the Association, shall initiate and propose measures of policy for its adoption, and shall perform such other duties as the Association may from time to time impose upon it. At any meeting of the Executive Committee seven members shall constitute a quorum. The committee shall make a report of its doings at each meeting of the Association.

5. At any regular meeting of this Association or of the Executive Committee, special committees may be appointed or elected to which specific subjects may be referred for consideration and report.

#### SECTION V.

##### *Amendment and Repeal.*

These By-Laws may be amended or repealed by a vote of two-thirds of the members present at any duly called and organized meeting of the Association, provided notice of such proposed change shall be given in writing by the Secretary to every member of the Association at least ten days before the meeting at which the proposed change is to be considered and voted on.

## Obituary.

GENERAL WILLIAM F. DRAPER.

GENERAL WILLIAM F. DRAPER, one of the most distinguished of American inventors and manufacturers and a member of this Association, died on Friday, January 28, 1910, at his winter residence in Washington. He had been critically ill for two months, and the members of his immediate family were about him when he passed away. There were impressive funeral services in Washington and also at Hopedale, where many representative New Englanders in business and public life gathered to pay their last tribute to an honored and beloved associate.

The death of General Draper, though not unexpected, brought deep grief to hundreds of friends and a heavy loss to the industrial interests of New England. General Draper was born on April 9, 1842, in Lowell, Mass., the son of George Draper, a celebrated manufacturer of his time and a very able and interesting man. He was one of the leaders in the famous social experiment at Hopedale.

The son was trained as a boy in mechanical drawing and worked for some time in a cotton mill. Full of courage and patriotism, he enlisted among the earliest Massachusetts Volunteers in 1861, and was chosen Second Lieutenant of the Milford company which formed the nucleus of the Twenty-fifth Massachusetts Infantry. In this regiment he rose to be First Lieutenant, Captain, Major, and Lieutenant Colonel, participating in the North Carolina campaigns and undergoing hard service in Tennessee. He commanded his regiment in the Battle of the Wilderness and before Petersburg commanded a brigade. In the Virginia battles he was severely wounded, and was brevetted Colonel and Brigadier General for gallant and meritorious service. General Draper's war-time reminiscences as told in his "Recollections," though modestly related, were a revelation to his friends. He was one of the most accomplished of the young officers whom Massachusetts sent into the Union army, one of the youths from a peaceful New England environment who seemed to develop a veritable genius for war.

After retirement from the army General Draper connected himself with his father's firm, E. D. and George Draper, manufacturers of textile machinery. When E. D. Draper retired, the General secured his interest, and became a partner with his father in the firm under the name of George Draper & Son. When George Draper died in 1887, General Draper succeeded him at the head of the great undertaking that had then become one of the foremost enterprises of its kind in the world.

In 1890 General Draper was elected President of the Home Market Club, which his father had founded, and in 1892 he was elected to Congress from the Hopedale district. His service in the National House was a most creditable one. General Draper, like his father before him, was a firm and able protectionist, who could give good reason for the faith that was in him. His public addresses on the tariff and on other questions commanded wide respect, and had a large influence on public opinion. He was a consistent, courageous public man, incapable of weakening or compromise.

In 1897 General Draper became Ambassador to Italy, and his three years of service at the Roman capital were most creditable to him and to his country. His scholarly tastes and courteous hospitality made him a great favorite in Rome. Returning to this country, General Draper continued to spend much of his time in Washington, where he was a conspicuous and honored figure in social and public life.

By his own inventive genius and his ability to direct the researches of others, General Draper has laid the textile industry under enduring obligation to him. He and his company have made wonderful improvements in textile machinery, and the Draper name has become famous throughout the world. His business sagacity was remarkable, and his standards of business and official conduct were most high. Massachusetts has lost in the death of General Draper one of the greatest of her citizens.

General Draper had been for many years a director in the Milford National Bank, and in several other important Milford enterprises. He was a member not only of the National Association of Wool Manufacturers, but of the Arkwright Club, the Grand Army of the Republic, the Knights Templars, the Sons of the Revolution, the Society of Colonial Wars, the Army and Navy Club of Washington, the Union Club and the Algonquin Club of Boston, and the Hope Club of Providence. He had

been commander of the Massachusetts Commandery of the Loyal Legion. General Draper had written much and well in pamphlets and magazine articles on public questions, but his most important literary work was his autobiography, his "Recollections," published a few years ago, narrating in a straightforward, vivid way the achievements of a versatile career. Few men in all American history have won such distinction in so many fields.

General Draper had been twice married, and leaves three sons, George Otis of New York, Arthur Joy of North Carolina, and Clare H. of Hopedale, and two daughters, Edith, the wife of Montgomery Blair of Washington, and Margaret Preston Draper.

#### JOSIAH PERRY.

JOSIAH PERRY of Webster, Mass., one of the oldest woolen manufacturers in the United States and for many years a member of this Association, died on January 25, 1910. His career ran back to the days of small things in the textile manufacturing industry of New England. Mr. Perry was born on March 14, 1832, in the town where his whole life was passed and where his grandfather had settled before the Revolution. His father in 1825 had built a log dam and started a mill, on the stream running through his farm, for the manufacture of satinets. Mr. Josiah Perry as a boy began work in this establishment at a time when the hours of labor were in summer thirteen for every week-day except Saturday. In this mill Mr. Perry acquired his thorough knowledge of the trade. From 1852 to 1858 he was the overseer of weaving in the mill, and in the latter year he became the superintendent.

In 1863 Mr. Perry's father died, and his two sons, Josiah and Charles H., undertook the business. Mr. Charles Perry was killed in an accident in 1869, and Mr. Josiah Perry became the sole proprietor. In 1865 he gave up satinets for all-wool goods, and in 1872 he began the manufacture of a double and twist fabric, which soon won an enviable reputation. Mr. Perry followed progressive methods, and kept his machinery abreast of the times. For the old cam looms he substituted early the Crompton narrow looms, and in 1882 he displaced the narrow looms by broad looms. He watched the markets carefully and produced fabrics for which



JOSIAH PERRY.





there was a steady demand, and his affairs prospered and broadened greatly.

Mr. Perry's active career at the head of his establishment covered an unusual range of years, but some time ago he gave over the actual management to his son-in-law, Mr. Eben G. Parsons, an experienced and capable executive, who has brought the mills up to the very highest ideals of modern efficiency.

This reliance upon Mr. Parsons enabled Mr. Perry to pass his later years with more opportunity for leisure and enjoyment than he had had in his arduous youth and manhood. He took a keen interest in public affairs, and represented his district in the General Court of Massachusetts. In 1900, as a Presidential elector for Massachusetts, he cast his vote for William McKinley. Mr. Perry was widely esteemed among manufacturers for his ability and practical wisdom, and his fine qualities as a man won the affection of his friends and neighbors. To the last he retained his interest in the village of Dudley, which has long been regarded as an ideal New England manufacturing community. For eighty-five years the Perry Mills, in continuous operation in the hands of one family, have been the pride and mainstay of the neighborhood, the manufacturers being broad and generous men, who have always enjoyed the confidence of their employees. Mr. Perry knew exactly how to deal with his work-people. He was just to them and they were loyal to him. He was always a modest man, simple in his tastes, democratic in his sympathies. His people served him well because they recognized his instinctive power of leadership. The whole community felt an honest pride in the reputation which the Perry fabrics had established.

Mr. Perry was married in 1862 to Miss Martha J. Elliot. They had three children, of whom two daughters are now living.

#### DAVID R. CAMPBELL.

MR. DAVID R. CAMPBELL, a member of this Association and a veteran wool manufacturer of Maine, died recently at the home of his daughter in Guilford, Me. Mr. Campbell, like many other successful leaders in the carded woolen industry of Maine, was a native of Scotland. He was born in Glasgow in 1830, but spent his boyhood and youth in Galashiels, that famous seat of the Scottish woolen interest that has sent so many capable, practical



manufacturers to America. After serving a thorough apprenticeship at Galashiels and mastering the business, Mr. Campbell came to the United States, in 1855, landing at New York so poor in money that he had to work as a day laborer in order to secure the means of reaching Maine.

At first he carried on the carding business at Corunna, with a single carding machine. The wool of the neighborhood was brought to him by the women, who spun and wove the carded wool into fabrics. From Corunna Mr. Campbell moved to Dexter and thence to Sangerville, where, in 1869, he began the manufacture of carded woolen goods on his own account. Subsequently he constructed a large mill in Sangerville, which he called the Campbell Manufacturing Company. His business was very successful and he won an enviable reputation for integrity and efficiency as a manufacturer.

When Mr. Campbell died he was, as he long had been, the president of the Campbell Manufacturing Company, and he was the president also of the Niantic Manufacturing Company of Connecticut and of the Dumbarton Woolen Mills of Dexter, Me.

## Editorial and Industrial Miscellany.

### FREE TRADE NEARING ECLIPSE.

#### UNMISTAKABLE OMENS IN THE POLITICAL SKY OF THE UNITED KINGDOM.

THOUGH the old Cobden policy of *laissez faire* received a severe shock in the recent Parliamentary elections in Great Britain, it was not obliterated. Most of the industrial centers of the United Kingdom, and Lancashire in particular, remained fairly loyal to free trade. What the result would have been if the issue had not been complicated with the popular quarrel with the House of Lords must be a mere matter of conjecture, but the fact cannot be disputed that free trade is no longer a fetish in the British Isles. It may be on the whole the better policy for the British government and British industries. Critical opinion in the United States holds as a rule that for Great Britain to abandon free trade entirely at this juncture would mean more loss than gain, for the "tight little kingdom" lacks the Continental domain and immense, diversified natural resources that have helped to make protection so wonderfully effective in America.

Yet the question has not been settled by one narrow defeat of the Unionist-Protectionist party. It will probably be the dominant issue in the next Parliamentary contests, which cannot be long delayed. Americans who have been in Great Britain during the past summer and autumn bring back depressing reports of the poverty and suffering prevalent there among the working population. Beggars are everywhere, and idleness and want are haunting the busiest streets of London. This impression that affairs are in a bad way is confirmed by the official records of the government.

American Consul-General Griffiths, at London, cites British Board of Trade reports to prove by specific figures that "beginning with the second quarter of 1908 and during the first six months of 1909, there has been a steady fall in wages, with an increasing number of workers out of employment." "With the exception of those employed in the clothing and printing trades, and the employees of local authorities and of the government, it

may be broadly stated that all British industrial wage-earners were receiving smaller compensation on July 1, 1909, than on the same date in 1908." Applications for poor relief have increased ominously not only in London, but throughout England and Wales. Yet the imports and exports of the United Kingdom make a rather favorable showing month by month, and are exultantly quoted by the champions of free trade as proof that British industries are fundamentally sound and prosperous.

These very low wages and precarious employment are hailed by British economists as more advantageous than otherwise, because they tend to reduce the cost of production. Thus, Sir William Priestley, M.P., speaking in East Bradford during the recent campaigns, boasted that "the bricks in an American mill cost twice as much as the bricks in his; the American manufacturer's depreciation was twice as much as his, and the interest on his capital was twice as high." The reason for this, of course, is to be found in the low and falling wages and uncertain employment or half-employment of English work-people, as shown above in contrast with the high labor cost of construction in America. The distinguished orator was speaking not to a body of fellow-manufacturers, but to a large audience of laboring men, and that these men heartily approved his argument and that Yorkshire and Lancashire quite largely stood by free trade would go to show that men's minds change slowly there even under very hard and discouraging conditions.

Yet, across the North Sea, in Germany, expanding trade and increasing wages are going on together, under the protective policy which is Bismarck's greatest and best gift to his countrymen. In connection with the system of compulsory insurance now holding such wide vogue in German industries, a very careful record of actual wages earned and paid is kept. This demonstrates "a steady movement upward in earning power," as American Consul Norton at Chemnitz reports. "The average wage of the German working population has mounted very rapidly. The average weekly wage was in 1891, \$4.95; in 1901, \$5.42, and in 1908, \$6. In other words, the German worker's average wage was, in 1901, 10 per cent greater, and in 1908, 21 per cent greater, than in 1891."

It is comparisons like these that are responsible for the marked growth of protectionist sentiment in the United Kingdom. For many years the superior earnings and comfort of the work-people

of America have been familiar to their British kinsmen. But the easy explanation of the British free traders was that America was a new, half-developed country, of enormous natural resources, and that wages would have been higher there than European wages even if there had been no protective tariff.

But this ready excuse, so long invoked and so long effective, fails utterly in the case of Germany. There is a country as old as, and far less gifted by nature than, the United Kingdom — and yet the wages in Germany have been steadily increasing under protection, while in Great Britain under free trade they have of late declined. Moreover, these increased wages and improved comfort and prosperity of the German work-people have been accompanied by a prodigious growth of German commerce, successfully challenging the ancient British supremacy in many of the most important markets of the world.

In 1880 British exports of manufactured goods were valued at £198,000,000, and German exports at only £83,000,000. But in 1906, while British exports had grown to £309,000,000, German exports had grown to £219,000,000. Of course, the rate of growth for America was larger still, but this German advance, simultaneously with increased wages, is something which completely demolishes all the fine theories of the "Manchester school." The German menace is leading straight to the re-adoption of a protective policy for the British people by their government.

Not only in this point is the traditional British conservatism breaking down. The leaders of British industries are awakening to the fact that they have much to learn from the alert and aggressive business methods of their overseas competitors. This idea is well expressed in a significant editorial of the "Textile Recorder," of Manchester, reviewing the results of the recent election :

We do not, however, wish to enter into a political argument, but we do wish strenuously to urge our spinners, manufacturers, and machinists to closely consider the conditions which prevail at the present time, and to rid themselves of the feeling that because we have always held the premier position in the textile industry of the world, that we shall still do so with very little trouble. No greater and more devastating mistake can be made. We are not impregnable as we were thirty years ago, and it will only be by strenuous and continued endeavor in the future that we shall maintain our position. We are not pessimistic, nor do

we wish to decry our spinners, manufacturers, and machinists; far from it, but we do protest against the lingering conservatism which is prevalent in our textile industry. In whatever manner other countries are bringing about the result, the fact remains that their mills are as well equipped and their organization in many cases better than our own. We have left to us a very valuable possession, namely, hereditary talent in the production and treatment of yarns and fabrics. But we cannot hope to hold the bulk of the world's trade with this alone.

Look back on the past ten years and note the progress that has been made by the textile machinists of America and Germany, and compare the inventions with those originated in this country. The Northrop loom — although outside the period named — is a striking example of a machine evolved in America to meet certain conditions, namely, the shortage of skilled labor. By its use Americans can and are competing seriously with us in the Far East. The introduction of this loom undoubtedly caused our loom builders to improve their plain looms, but why have we to wait like this until we are forced to do a thing? We have got to wake up.

We could give other examples of foreign inventive ingenuity of no mean order. We know that we have as clever men in this country as ever we had, but the question arises, are we cultivating them and using their talents to the best advantage? There can be such a thing as over-organization, and it is questionable whether or not under-organization is not the better state, but there is a happy medium, and if the introduction of so-called American methods will increase production and reduce cost in our weaving sheds, why not adopt such methods without question and at once.

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## ANNUAL REVIEW OF THE BRITISH WOOL AND WOOLEN TRADE.

THE year 1909 in the wool and woollen trade of the United Kingdom witnessed an improvement over the year preceding, though the gain was by no means so marked as in the United States. In the Bradford "Yorkshire Observer" of December 30, 1909, an excellent review of the twelve months then ended is presented. The "Observer's" annual review says:

This year of 1909 has not been an historic year, as its immediate predecessor was. Of 1908 we wrote that "a worse year on the whole we have not had in the Bradford trade for a generation." It is, indeed, pleasant to be able to write of 1909 in different strain. We cannot, indeed, quite reverse the language



applied to 1908, for there have been some better years. But it has, on the whole, been a good year. To use a homely Yorkshire expression, "it's been better than like."

Happily the summer, though a dismal affair for us, was not a bad one in America and Canada. The world has had bountiful harvests on the whole, and as there are no old stocks to cause a glut, the grower is making a good and remunerative price for his wheat. Hence almost before the harvest was assured we felt the stir from America. The very violence of the collapse of wool values in the first five months of last year brought about a more certain recovery, and when it was found that the whole of the "carried over" stock, variously estimated at from 120,000 to 200,000 bales of wool, had disappeared, having been actually absorbed, the future of prices became practically assured. But it is most sincerely to be hoped that we are not in for a wool famine "scare." At present, as our tables show, we have been rather reckless in this matter, and the quantity of wool that we retain for our own use is by no means fully adequate for our own needs. It happens that the home market is not yet by any means at its best.

Still, when all is said, we have to reckon with the fact, from which there is no getting away, that the world's wool requirements have been increasing faster of late than the world's wool production. American wool spindles have been increased enormously. Japan and even China have entered upon a career which inevitably calls for more wool. It is a huge mistake to suppose that this is a mere transference of trade from us to them.

It is evident that more and more we must take up the position of making quality the test. We have already made considerable advances along that line, but we must go further. Wages may have to go up, but higher wages will bring better service, and in the end may not cost more. Anyhow, it is no longer a reproach to us that we are beaten at our own game by the French or the Germans. In England it was supposed and intended to be a stigma that a thing was "made in Germany." On the Continent, goods are more and more being sold as "English" because that is a hall-mark of quality.

This progress is already leading to developments. New mills have been erected — not many, it is true, as yet — which are pioneers in new methods of construction and equipment, destined presently to make the old-fashioned mill obsolete. A modern spinning frame, a modern loom, even the modern combing plant, require, if they are to be economically worked to the utmost advantage, that they should be housed and worked under conditions very different from those that were thought good enough even twenty years ago. It is not merely, therefore, that old machinery must be "scrapped," — in some cases that may suffice, — but the lighting, arrangement, and driving of a plant are all

important in the attainment of excellence. We need not fear the competition of cheap foreign labor if we can keep and ever seek to increase our lead in this respect.

## WOOL CONSUMPTION ESTIMATE.

*For Twelve Months ended November (in 1000 pounds).*

	Import Wool Retained.	Home Grown Retained.	Deduct for Export.		Net Balance.
			Tops, Etc.	Yarn.	
1898 .....	398,798	123,970	56,072	81,670	385,026
1899 .....	370,357	119,416	62,072	87,690	340,011
1900 .....	348,584	115,447	48,105	72,122	339,805
1901 .....	400,812	118,379	62,607	56,956	399,628
1902 .....	352,984	101,238	84,716	60,872	308,634
1903 .....	314,176	97,385	89,729	70,442	251,390
1904 .....	304,503	97,194	91,291	63,004	247,402
1905 .....	340,146	91,932	99,276	45,152	287,650
1906 .....	374,453	103,092	101,213	55,205	321,127
1907 .....	429,386	97,883	103,827	63,522	359,920
1908 .....	411,562	101,485	86,934	57,032	369,081
1909 .....	399,536	79,998	107,667	68,177	303,690

Here may be speedily seen the reason why wool consumers were forced to buy at the end of the year even when they thought prices were getting up to a risky level. Of imported wool we retained, during the twelve months, 12 million pounds less than in the preceding twelve months, and 30 millions less than in the year before. Upon our home clip the drafts for export have been quite unprecedented, being 29 millions more than last year; and the quantity of home-grown wool retained has been but 79 million pounds, being 21 million pounds less than last year. On the other hand, the increased exports of tops, etc., and of yarn have taken away 32 million pounds of wool more than last year. Further, we have exported £1,000,000 worth more of wool manufactures (of all kinds) this year than last (£20,275,000 against £19,232,000); and it may be taken for granted that the home consumption of wool manufactures has increased in a larger ratio. Taking all these increases of consumption together with the diminished supplies, it is not surprising that in the latter part of the year stocks of raw material were believed to have been as low as, or lower than, at any time within living memory. An awkward contributory item in the latest situation has been the almost famine level of raw cotton prices. This has doubtless hindered seriously that expansion in the output of mixture fabrics which on some former occasions has given relief when wool was dear. Our imports of foreign wool manufactures have been practically identical with last year's (£7,245,000 against £7,241,000), so that the constantly increasing needs of the population



in the way of wool clothing have all had to be met by our own manufacturing resources, drawing on the former wool reserves, whatever these may have been.

#### THE WOOL MARKET.

To the wool merchant and topmaker the year has been an anxious one, though in the end not altogether a bad one. Trade has been good almost from the beginning, and it has been getting better all the time, so that we have had no slackening in consumption from beginning to end. All through wool has been master of the situation. Any improvement in prices either of yarns or pieces has followed on, and has been brought about by the upward movement of wool. The competition of Germany, America, and France in all the world's wool markets has been exceptionally keen, and we have had to realize that Bradford may be a good customer, but it no longer rules either in Australia or in London. Both the export yarn trade and the manufacturing branches had a good deal of leeway to make up when the year opened, and they were by no means so confident as they are to-day. Throughout the year we have had no speculation in any branch. Trade seems to have been done in a cautious manner and on a sound basis. Spinners have bought to meet their more immediate requirements, and have paid the price of the day with more or less reluctance. All this has made it difficult for the wool man to do a really profitable business. At no period in the year has the Bradford price for tops been equal to the cost price of the day, either in merinos or in crossbreds.

It will be remembered that towards the end of 1908 there had been a distinct revival in the trade and the December sales in London had gone with a good deal of spirit. And although in Bradford crossbreds seemed for a long time to hang fire, it soon became evident that we were in for a very big trade in Botany stuff. At the January sales in London the American competition was absent, and our people got some cheap wool, but in March both merinos and crossbreds advanced rather strongly. At the May sales there was another big upward movement, most noticeable, perhaps, in the fine to medium crossbreds which America was taking with unprecedented freedom. All through the year since, Americans have been buying 50's (and latterly 46's) and upward in this market, and these wools have got really scarce. Towards the middle of the year, however, as spinners came to work up their low-priced contracts, they found considerable indisposition on the part of their customers to pay the prices necessitated by the rise in wool values. These values, it was said, were dangerous, and could not last, and so the July sales found the trade not quite so confident. Importers were quite content to take their profits without standing out for full London prices, and for a few weeks the market was a little "rocky." However, the London sales finished up fairly firm for all good combing merinos, while fine crossbreds showed a further 10 per cent rise.

At the September sales merinos went to fancy prices, as much as 15 per cent advance on July being paid, so that good 60's in Bradford would have cost very nearly if not quite half a crown.

Fine crossbreds also went up, and for some reason that is not clear—for they were not wanted—so did 40's. Afterwards they relapsed a little, and apparently so also did merinos.

Still, this was the dearest point of the year, for shortly afterwards it became necessary to consider the buying of the next clip, and some little forward selling took place at about a penny below the then Bradford spot price, or perhaps threepence below the level of the September sales. For fully six weeks the market was very quiet. It was to the interest of the trade that wool should come down to a more reasonable level. It was hoped by some that we might get under the two-shilling level for 60's tops. Were we not promised an increase of 200,000 bales? Spinners assisted the topmakers by keeping out of the market, and during October and the first week of November very little was done in the way of tops. But the reports of the early sales in the colonies were so full of strong confidence that users were tempted by the cheapness of Bradford to buy again, and so the sales at the end of November, which were to have shown a sharp decline as a lesson to Australia, finished up with a range of values that varied very little from the September level. The advices from New Zealand are similar to what we have had from Australia, and so within the past fortnight we have had a good deal more activity in the crossbred department. Forties, which all through the year have been relatively the cheapest article, have now taken an upward move and are at the highest point of the year.

The year 1909 started with trade on the up grade, a steadily growing demand for wool and better prices. Halfbred hoggs, which at clip time of 1908 had stood at 8½, were last February worth 10¾d., and although January had been a quiet month, from March onward trade continued to develop very satisfactorily, and staplers were kept very busy right away through April, May, and June, until the new clip came on. The grower in the country is nowadays well posted as to the trend of the markets and he was not caught napping this year, and the English wool dealer very soon found himself faced with the alternative of paying a penny a pound more for wool in the country than it was worth in Bradford at the moment or going home without any wool at all. Hence, save for American buying, which has been persistent all through the year, the stapler found his goods unsaleable for some time. After the Americans came the South of Scotland tweed men, who have taken a lot of Eastern Counties and Down wools for the tweed trade.

From August onward, business has been good and prices have steadily, though almost imperceptibly as between one week and the next, shown an improvement. At the same time it has been very difficult to replace in the country anything sold here except

at extreme rates. The wool has been bought up freely, and it is doubtful whether ever before has the country been so well "cleaned up" as it is to-day.

With luster wools the course of trade has not been so satisfactory. Four months passed after the early wools were bought before any sign of a demand for them was experienced in this market. Indeed, long wools generally have been very much "out of it" for a large part of the year.

#### THE GREAT AMERICAN DEMAND.

In the beginning of October, however, a demand set in, and some fairly good business has been done since, so that prices are now a "thick penny" better. This applies not only to Lincoln wools, but to cross hogs.

The feature of the English trade this year has been the large and unprecedented American demand. American buyers have been consistent all the way through. In previous years American buying has been spasmodic and erratic. They have been content to pay fancy prices, but would only take the very pick of the wool they happened to require. Although even now they will not, of course, take any shabby or ill-conditioned lots, they have this year been free buyers of "anything likely" and have taken large quantities of Shropshires, halfbreds, North hogs, good average Downs, and Irish.

The figures below, showing the exports to America for this and previous years, make quite clear what an important factor the American requirements have been, and what a large part the future needs of American mills may play in the economy of the wool market. For although we have had a considerable increase in the weight of our home-grown clip, we have had less home-grown wool left for our own consumption than ever before.

#### TOTAL VALUE WOOL SENT TO U.S.A.

	From United Kingdom.			From Bradford.
	Foreign and Colonial.	British-grown.	Total.	
1898.....	£1,334,823	£128,503	£1,463,326	£114,125
1899.....	1,185,448	371,121	1,556,569	189,233
1900.....	1,510,018	513,003	2,023,021	279,596
1901.....	1,578,557	370,328	1,758,885	186,760
1902.....	1,505,255	644,652	2,149,907	361,026
1903.....	1,560,673	677,647	2,238,320	328,794
1904.....	2,239,708	1,044,545	3,284,253	822,895
1905.....	3,323,273	1,136,579	4,459,852	1,101,946
1906.....	2,876,680	875,102	3,751,782	900,914
1907.....	3,097,066	892,760	3,989,826	908,230
1908.....	2,212,108	797,891	3,009,999	832,209
1909 <sup>1</sup> .....	4,756,052	1,618,166	6,374,218	1,827,049

<sup>1</sup> Eleven months.

## WOOL EXPORTED TO U.S.A. THROUGH BRADFORD (Each Month).

	1909.	1908.	1907.
January .....	£89,830	£46,503	£98,311
February.....	145,063	30,741	86,362
March .....	156,747	52,339	90,239
April .....	139,275	73,102	89,382
May .....	194,211	41,284	60,104
June .....	127,017	88,800	41,105
July .....	248,205	77,257	136,852
August .....	225,186	132,059	121,500
September .....	147,743	68,452	87,589
October .....	190,563	72,811	52,579
November .....	163,209	80,768	17,550
December .....	—	68,088	26,256
	£1,827,049 <sup>1</sup>	£832,204	£907,829

<sup>1</sup> Eleven months.

There was in 1908 a very substantial increase in the number of sheep in Great Britain and Ireland — only two counties in England showing a decrease, and even these were unimportant, while the increase in some counties was remarkable, so that the weight of this year's clip works out at 142,000,000 pounds, compared with 133,700,000 pounds in 1908, a gain of 8,300,000 pounds or 35,580 packs. It is most unfortunate, from the point of view of the wool trade, that this year should have shown a most remarkable fall in the price of sheep. In June last fat sheep and lambs in the country markets were making 8s. and 10s. less than at the same period of last year, and there was nothing abnormal in the 1908 price. A drop of 10s. per head in the value of over thirty million sheep means fifteen millions sterling of farmers' assets clean wiped out. Of course, the farmers have not realized the whole loss, for they have not sold all their sheep, but probably the actual loss sustained will be not far short of £5,000,000, notwithstanding some recovery in the markets from the lowest point. The explanation given is that stocks of frozen mutton had accumulated to such an extent as to cause a serious break in prices, and forced unloading. This, while it has exerted a salutary check on the killing in Australia and New Zealand, and a consequent increase to some extent of the wool-bearing sheep of next year, must have an opposite and serious effect in this country. The normal value of a sheep in this country is from three to four times what it is in Australia, while its wool value may be very much the same. Sheep are not kept in England for wool, but for mutton, and in the face of such a terrible collapse in values as the farmers have had this year, sheep farming loses all its attractions, and the inevitable result will be seen in a diminution in numbers and a reduction in the production of wool.

## MOHAIR.

There is very little to be said about the mohair trade of 1909. It has not only been an uneventful year, but in some respects has been strangely like the year before, "only more so." Many sentences, indeed whole paragraphs, of our last year's report might be reprinted, with the alteration of a figure or two perhaps, as accurately descriptive of the year that closes to-morrow. Wool prices have fluctuated but little, indeed, as compared with 1908, but mohair has been steadier even than wool. Some day, perhaps, mohair may again become a speculative article, but that will be when the trade has discovered and developed new outlets for this material which lead to a greatly increased demand.

The mohair-growing industry is, however, expanding fast in South Africa, and in Asia Minor there is a reasonable prospect of expansion under the more settled conditions that prevail in that unhappy part of the world. The increase in the production of Cape mohair is strikingly shown in the accompanying table. This year the imports of mohair constitute a record, for although six and ten years ago the total number of bales was higher, the proportion of the small Turkey bales was then larger. Indeed, the "total" column is very apt to mislead. Imports from Turkey fluctuate very much—in 1908, owing to heavy losses in goats in the previous winter and other causes, the quantity was little more than half the average. But the growing of mohair has progressed pretty steadily at the Cape since the war, and is most noticeable during the past three years.

IMPORTS OF MOHAIR FOR FIFTEEN YEARS.

Year.	Turkey.	Cape.	Average.	Total.
1895.....	62,000	22,000	22,600	84,000
1896.....	25,000	20,000		45,000
1897.....	56,000	25,800		81,800
1898.....	55,694	20,881	20,966	76,575
1899.....	70,978	26,121		97,099
1900.....	44,837	15,896		60,733
1901.....	50,519	20,222	29,842	70,741
1902.....	59,981	31,000		90,981
1903.....	68,048	28,462		96,510
1904.....	55,462	25,565	26,807	81,027
1905.....	63,574	22,934		86,508
1906.....	50,049	25,116		75,165
1907.....	60,129	36,845	36,786	96,974
1908.....	34,734	33,805		68,539
1909.....	56,528	39,708		96,236

It should be remembered when comparing prices that the Cape clip of 1907-1908 was distinguished by the large proportion of



strong hair, and this clip was not all exhausted at the beginning of the present year. Hence when the new clip came on the market in May last, and it was found to be of quite superior quality, there was an immediate apparent advance in price of fully a penny on Cape firsts.

The chief feature of the year has been the demand for fine hair, hence the mixed blues have been good to sell, and the kids were quickly taken up at from 2s. to 2s. 2½d. But there has been very little demand for winter hair.

The price of Turkey has remained very steady throughout the year. Fair average has been round about 16½d. nearly all the time, with some disposition to get up as the year went on. But anything that was a little above average has been worth more money, 18d. having been made in November for so-called average, while from 17½d. to 20d. has been paid during the year for exceptional parcels. This demand for fine hair grows more insistent every year, and the growers at the Cape would do well to recognize it. It entirely accounts for the disparity in price between Turkey average and Cape firsts, and the eager demand for "mixed" bales of Cape which contain a proportion of really fine.

In alpaca the year has been almost without feature. The consumption has been steady, sufficient to keep prices up, but not big enough to lead to speculation. Most spinners have worked full time all the year, and yet the stocks in Liverpool at the close are distinctly heavier (about fifteen hundred bales fleece and the same quantity of inferior) than they were at this time last year. Prices have varied very little throughout the year.

The clip has been a little better in quality than in recent years, perhaps because there has been less shipped direct to America.

#### YARNS.

A year ago we remarked, regarding 1909, that without being accused of taking too sanguine a view, we might be pretty sure that it would be an improvement on 1908, and we are glad to say that events have justified the statement.

Early in the year—without any visibly sufficient cause—a short period of recovery set in, and there was quite a respectable amount of buying, chiefly, however, speculative. Standard yarns of the 2/40's worsted type suddenly took a jump upwards, and, under the apparent idea that no one could say how far the rise might go, many merchants speculated freely. The immediate consequence was a rise in price, and 2/40's worsted went from 1s. 6¾d. to 1s. 7¾d. per pound during the latter part of January and early February. And then came the long wait whilst customers took their time about particularizing their purchases.

During this waiting period spinners and merchants had time to realize that until definite limits are fixed to contracts, with a clearly-expressed and understood penalty clause, they are both



alike at the mercy of the ultimate buyer. Into this question we went pretty fully last year, when we strongly advocated the matter being taken up by the Chamber of Commerce, and sketched what seemed a feasible plan of operation. The subject was, indeed, discussed by some of the leading firms of the district, but fear of losing trade made them hesitate and finally relinquish the idea of trying to enforce a definite time limit to contracts. The dull state of trade at the end of 1908 was, no doubt, responsible for this shelving of the whole matter.

But the idea, nevertheless, was taking root, and the old "go-as-you-please" procedure was quietly dropped by first one firm, then another. These people began to send back order sheets, with a polite request to state delivery time — or else with a note saying that no open contracts would be booked, and that all orders must be given and taken with a time limit. Most people were content to allow six or even nine months in which contracts were to be taken up; others, who were perhaps better supplied with orders, gave only about three or four months — generally four. And the result certainly has been good, inasmuch as it put the brake on reckless buying and helped to heighten the feeling of responsibility in connection with taking up contracts generally.

The yarns bought in the very early spring proved to be very hard to shift. Week after week went by and particulars came in with exasperating slowness, whilst prices dropped gently down. This went on for some time, and it was only towards the latter half of the year that trade got upon a really satisfactory basis. Perhaps the starting point of unquestionable improvement was the August Bank Holiday. In that week some rather heavy buying took place, and since then the market has never looked back. The sensational advance of wool at the London sales in September was not, however, backed up by any such sensational rise in yarn prices in Yorkshire, and this, no doubt, helped to steady the market. It has often been said that the Bradford market was about the most excitable in the textile world, but for once this dictum was wrong, and Yorkshire set a good example of coolness in face of excitement in other wool centers. Prices might go up in London, but Bradford was in no way disposed to get into a panic over it, and the comparative quietness after the September wool sales showed the wisdom of that attitude.

From September onwards there has been a steady and generally slow advance. The standard 2/40's worsted has gone up by fractions of a penny from 1s. 9d. to 1s. 10½d., and now at the end of the year has reached the comparatively high level of 1s. 11d., while the spinners of single 30's demi have done even better, for the price has gone up from 5s. 6d. to 8s. 6d. per gross.

## PRICES OF YARNS.

*Worsted.*

	2/32's Worsted, per Pound.	2/40's Worsted, per Pound.	30's Super Luster, per Gross.	30's Super Demi, per Gross.	36's Super Demi, per Gross.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
January .....	1 3 $\frac{3}{4}$	1 7	7 6	6 3	6 1 $\frac{1}{2}$
February .....	1 4	1 7 $\frac{1}{2}$	7 6	6 3	6 1 $\frac{1}{2}$
March .....	1 4 $\frac{1}{2}$	1 8	7 6	6 6	6 3
April .....	1 4 $\frac{1}{2}$	1 9	7 9	6 9	6 6
May .....	1 5	1 9 $\frac{1}{2}$	8 0	7 0	6 9
June .....	1 4 $\frac{1}{2}$	1 9	8 0	6 9	6 7 $\frac{1}{2}$
July .....	1 4 $\frac{1}{2}$	1 8 $\frac{1}{2}$	8 0	6 9	6 6
August .....	1 4 $\frac{1}{2}$	1 9	8 3	7 0	6 9
September .....	1 5 $\frac{1}{2}$	1 10	8 3	7 3	7 0
October .....	1 5 $\frac{1}{2}$	1 10	8 3	7 3	7 0
November .....	1 6	1 10	8 3	7 6	7 3
December .....	1 7	1 11 $\frac{1}{2}$	8 6	8 3	7 9

*Worsted* — (Continued).

	* 1/60's Botany, per Gross.	† 2/60's Botany White, per Pound.		* 1/60's Botany, per Gross.	† 2/60's Botany White, per Pound.
	<i>s. d.</i>	<i>s. d.</i>		<i>s. d.</i>	<i>s. d.</i>
January .....	6 6	2 8 $\frac{1}{2}$	July .....	7 0	3 0
February .....	6 4 $\frac{1}{2}$	2 9 $\frac{1}{2}$	August .....	7 3	3 0
March .....	6 6	2 10	September .....	7 4 $\frac{1}{2}$	3 0 $\frac{1}{2}$
April .....	6 9	2 11 $\frac{1}{2}$	October .....	7 4 $\frac{1}{2}$	3 1
May .....	6 9	3 1	November .....	7 3	3 0 $\frac{1}{2}$
June .....	7 0	3 0	December .....	7 4 $\frac{1}{2}$	3 1

\* Common 1/60's — 3d. per gross less. Super 1/60's — 3d. per gross more.

† 2/48's — 2d. per pound less than 2/60's.

*Mohairs and Alpacas.*

	2/32's Mohair Plush, per Pound.	2/32's Mohair Low Quality, per Pound.	1/36's Mohair Medium, per Gross.	2/40's Mohair Medium, per Pound.	2/40's Mohair Super, per Pound.	1/28's Alpaca, per Gross.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
January .....	2 6½	2 1	12 9	3 2	4 3	12 0
February .....	2 6½	2 0½	12 9	3 2	4 3	12 0
March.....	2 6½	2 0	12 9	3 2	4 3	11 6
April.....	2 6	2 1	12 6	3 2	4 3	11 6
May.....	2 7½	2 1½	13 6	3 4½	4 3½	11 6
June .....	2 8	2 1½	14 0	3 6	4 4	12 0
July.....	2 8	2 1½	14 0	3 6	4 4	12 0
August .....	2 8	2 1½	14 0	3 6	4 4	12 0
September .....	2 8½	2 2	14 3	3 6	4 4	12 0
October .....	2 9	2 2½	14 6	3 6½	4 3¾	12 0
November .....	2 10	2 3	14 6	3 6½	4 3¾	12 0
December .....	2 10	2 3	14 6	3 6½	4 3½	12 0

Amongst the advantages accruing to Yorkshire spinners through the abundant supply of work must be reckoned their strong position as regards the carpet yarn trade. Whilst we have no wish to run down any particular branch of the textile industry, it must be admitted by all who know anything about the carpet trade that the tendency for the last few years has been all in the direction of extravagant and unreasonable demands on the part of the carpet yarn users and more or less giving way on the part of the spinners. The same thing in a milder degree applies to the hosiery trade.

Amongst the various yarns which have felt the influence of the improvement in trade we may mention fancy yarns such as loops, knops, slubs, and various other descriptions of fancy effects. The demand for these yarns comes round in cycles of a few years—probably about seven—and lasts for a few seasons, covering perhaps three years in all, then dies down again. Last year there was a gradual revival in these yarns, and during the year that is just closing the revival has become stronger, and everything points to a decidedly better time for the owners of fancy twisting machines. The comparative cheapness of mohair at the present time will probably cause the majority of these fancy yarns to be made from that material, rather than from luster wool, and we believe that the coming year will see a big development in many sorts of fancy yarn, amongst which probably loops will play a leading part.

## AN INCREASED TRADE.

The Board of Trade returns give some interesting and instructive figures which must be unpalatable reading for those who are constantly pointing out how our national trade is decaying. This decay takes the form of a very substantial increase in the volume of trade done during the first eleven months of this year. For instance, the export of yarns of all kinds from our suffering island has increased from 64,920,500 pounds to 73,127,600 pounds — a difference of 8,207,100 pounds, or over 11 per cent increase on last year — just about  $1\frac{1}{4}$  million pounds less than the record year of 1907. The total imports of yarns from abroad for the corresponding eleven months were 21,966,454 pounds, leaving a difference in our favor of over fifty-one million pounds; in other words, we export three and a half times as much yarn as we import. The volume of trade is evidently there; it lies with spinners to see that they sell on such conditions as will leave them a reasonable profit, and not to fill up their order books with business which, properly reckoned out, does not pay expenses. Just here we may remark that a consultation of these same Board of Trade returns would also give food for reflection to those mischievous alarmists who are always talking and thinking about a possible war with Germany. Out of the 73 million pounds of yarn exported to the end of November this year 42,799,860 pounds went to German ports — no doubt a good deal of it to be used in Germany itself. Putting the matter on its lowest basis — and looking at it purely in a mercenary spirit — we cannot afford to quarrel with our best customer.

## YARN EXPORTS.

Woolen, Worsted, and Mohair Yarns.	Eleven Months ended November 30.			
	Quantities.		Value.	
	1908.	1909.	1908.	1909.
	Lb.	Lb.	£	£
Woolen Yarn .....	1,881,700	2,221,100	178,036	212,951
Worsted Yarn:				
Russia.....	2,409,500	2,750,900	276,046	292,232
Sweden.....	1,032,300	1,419,900	106,444	131,553
Norway.....	1,074,000	1,031,300	97,228	88,029
Denmark.....	1,839,800	2,173,000	170,142	192,620
Germany.....	28,983,700	32,847,600	2,558,833	2,667,041
Holland.....	1,177,700	1,510,000	106,573	130,379
Belgium.....	1,509,800	1,327,700	134,097	111,019
France.....	1,564,000	1,809,400	139,399	157,912
United States.....	11,500	89,800	1,142	9,209
Other Countries...	4,865,900	5,639,700	465,436	521,348
Total.....	44,468,200	50,599,300	4,055,340	4,301,342
Yarn, Alpaca, and Mohair:				
Russia.....	1,200,000	1,252,800	169,474	171,413
Germany.....	8,632,100	9,952,200	1,105,042	1,189,528
Belgium.....	385,300	399,900	51,452	51,655
France.....	1,481,200	1,741,100	186,493	208,828
Other Countries...	821,300	1,068,300	92,741	127,994
Total.....	12,519,900	14,414,300	1,605,202	1,749,418
Yarn, Hair, or Wool (unenumerated).	6,050,700	6,492,900	221,725	223,656

Quite apart from general questions such as contracts, the utility or otherwise of the "second-hand" man, etc., the history pure and simple of the yarn trade during 1909 may be summed up in one word—improvement. We have gradually emerged from the shadow and gloom of bad trade which afflicted us all during 1908 into the sunshine of comparatively good trade, and, after all, with no extremely inflated prices to make us anxious as to a near and serious drop. If one takes the average prices of both crossbred and Botany during the past ten years, one finds that we are now somewhat on the top side of that average, but we are still a good long way from boom rates, and are in no great danger of going much higher. For instance, 2/40's worsted at 1s. 10½d. now is still 4d. per pound below the top price paid a couple of years ago; and a 2/16's crossbred, selling at 1s. 11d.



then, can now be had at 1s. 8d., so we are a reasonable distance from really dangerous prices.

The difference between the present time and a year ago, as regards the single yarn on tube trade, is enormous, and a glance at the course of prices during 1909 tells clearly the improvement. A year last month, November, 1908, single 30's demi could be bought at 5s. 6d. per gross—a fall of half a crown per gross from January, 1908. Hundreds of cases were lying either here in England or else in the customers' stock-rooms abroad—awaiting a chance to be used—and people were almost in desperation at the dearth of orders, which seemed never going to end. But this year has seen all those mountains of stock melted, and to-day spinners of singles on tubes are having their innings. Some of them now talk of July–August, 1910, for delivery, so full are they of orders—and “all particularized!” One thing that makes the single spinner so happy is the run on thick counts that has developed lately.

#### PIECES.

Twelve months ago the trade was involved in the distressful process of liquidation following a financial crisis and the collapse of a boom. Buying for the spring had started a month or six weeks later than usual, and the orders taken had been very small. No one was optimistic, and the only comfort that was drawn from the situation was that things could not well get worse. For the first three or four months of the present year nothing happened to relieve the gloom, and then an improvement began in the United States and Canada, and traveled eastwards round the world. The wheel has not yet come full circle, for the silver currency markets of the Far East are still greatly depressed. All the other export markets, however, are considerably better, and some of them are once more at the high-water mark of prosperity. At home the improvement was somewhat retarded by a wet and wretchedly cold summer, but gratifying progress has been made in the last few months, and the autumn trade has been very satisfactory, while spring orders are plentiful and good. One thing that has helped Bradford immensely is the feeling that has manifested itself, not only in this country, but all over the world, for good, honest worsteds in preference to the fuzzy B. A. wool type of fabric and filled French goods.

At the present time the cry is of a scarcity of weavers, and there is work for a good many more looms than are actually running. Both as to turnover and profits this year has been decidedly better than last.

As regards styles, satin cloths and soleils were all the vogue in the spring, but the Directoire style which had brought them into fashion was too extreme to last, and with its collapse satins went out, to be replaced by crossbred fabrics.



In the dress trade the ascendance of colors over blacks has been very marked. In part this may be interpreted as the result of returning prosperity, for it is usually the experience that a run on blacks and navies coincides with a period of depression. In part also it is the natural result of the progress which has been made here in dyeing. We are no longer open to the reproach that we cannot dye colors. Time was when London buyers would not look at colored goods from Bradford. Now they are not only willing to look, but declare that they could not wish for anything better. This capture of the colored trade, which for years was the impregnable territory of the French, is in great measure the result of the enterprise of the Bradford Dyers' Association, Limited, and is an example of the benefit which may accrue from a syndicated industry, of which most people are prone to give an eye only to the disadvantages. An outstanding feature of the year has been the preference shown for worsted goods with a cloth handle—otherwise worsteds simulating woollens, or fabrics made of cap-spun yarns with a mule-spun finish.

In the home trade silk warp Henriettas are again receiving attention. Single warp mohairs with the "permo" finish have sold exceedingly well. Great as have been the developments in this direction during the past two years, finality has not been reached yet, and there is every prospect of the single-warp mohair becoming a valuable and permanent addition to Bradford's staple trade. The fabrics produced are exquisite in color and design, and they drape as gracefully as wool, without a sign of the cast-iron stiffness which characterized the old-style mohair dress and which so prejudiced the dressmakers against an otherwise beautiful material. The ordinary bright goods trade has been disappointing. In fact, the output has not come up to the level of 1908, mainly no doubt because of the failure of the demand from the United States.

The old adage about an ill wind has been strikingly verified during the past year in the case of the proofing trade, to which the wet summer gave an enormous fillip. In fact, makers of the so-called gaberdines have not known where to turn for looms to cope with the extraordinary demand. Deliveries have been in arrear all along, and the pressure still continues. This is another new addition to the Bradford industry, the scope of which is continually being widened in spite of the croakers. Originally the gaberdine cloth was a mixture of linen and hemp dyed in the yarn, which was the material used by the Burberry brothers for the Burberry coat. It has been copied in Bradford in various ways, but the feature common to them all is a close twill weave with wool on the face. The most usual style is Botany warp and cotton weft, but there is also the cross-dyed weft and wool warp, and there are even gaberdines on the market now made entirely of cotton. Being of very close texture, the cloth is naturally well adapted to withstand rain, and after proofing it becomes

almost as impervious as a mackintosh. In width it runs up to 54 inches and 60 inches finished, which in a great measure accounts for the difficulty experienced in getting looms to weave it. As men's fashions are more stable than women's there is every prospect of the gaberdine having a long innings, for while it is being used for ladies' cloaks, the chief purpose it serves is to make raincoats for men.

Nowhere is there more solid ground for satisfaction with the results of the past year than in the lining trade. Every one has been busy, and every market has been good. In the case of the United States the revival was felt in linings some time before the dress trade got the benefit of it, and Canada has been an amazingly good customer considering the size of its population. For these markets, of course, luster linings have been the principal thing. There has been a large increase in the output of eight-quarter luster and alpaca linings for export. A few years ago Bradford lost this trade to Barmen, owing to the superiority of the German finish, but it has now come back, and the Germans are nowhere. It is a curious and interesting fact that large quantities of these goods go to France, and are re-exported to South America, appearing in the returns as French exports, although no work whatever is done upon them in that country. Italians have done well both for export and home trade, and have to a large extent recovered the ground that was lost in the competition with cottons.

There has also been a good trade in cross-dye linings and brilliantines for waistcoat backs. Serious trouble is anticipated next year in this branch from the rise in cotton, for although most manufacturers have got some cheaply bought yarn which has enabled them so far to get along by averaging, there will come a time when they will be compelled to demand higher prices, and the question is, can the trade be maintained? The output of Venetians has been considerably less this year owing to the collapse of the American demand.

Trade with the United States would undoubtedly have recovered a good deal sooner but for the uncertainty which prevailed during the early part of the year as to possible tariff changes. The new tariff makes practically no alteration in the case of stuff dress goods, but in the case of cottons there is an increased duty of some  $7\frac{1}{2}$  per cent. The low luster trade is now virtually in the hands of the domestic manufacturers, and there has been little call for mohairs, except in heavy-weight fancies for men's wear, such as have previously been sold in the South American markets. This is now a good trade in the United States, and promises to grow. As mentioned elsewhere, luster linings have been taken in large quantities, and there has also been a good trade in cotton dress goods, which has been maintained in spite of the increased duty. Canada has been an exceptionally good market — booming would scarcely be too strong a word to apply to it. Nothing has come amiss. Worsted coatings, woolens, dress

goods, linings—the demand has been general and persistent. Australia and New Zealand have both been very satisfactory, and even South Africa appears at last to have turned the corner.

As regards the outlook for the future, there can be little doubt that the trade generally will face the coming year with considerably more confidence than they were able to feel at the beginning of the year that has just closed. There are one or two disquieting features which it would be well to bear in mind. In the first place, we have had a poor harvest, and money is not likely to be plentiful in the agricultural districts, and, secondly, there is the depression in Lancashire, the full effect of which has not yet been felt. On the other hand, we have the fact that every market is improving, and that the general trade of the country is expanding rapidly. Again, merchants and manufacturers hold very small stocks, and the effect of an increased demand will be felt at once throughout the trade. On the whole, therefore, the prospect seems distinctly encouraging.

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### THE HALF YEAR IN AUSTRALIA.

THE coal strike, affecting transportation and compelling increased freight rates, is the one serious trouble that the Australian wool growers have had to complain of during the past year. The review of the last six months of 1909 by the special Australian correspondent of the "Yorkshire Observer" tells as a whole a cheerful story, saying :

The improvement in sheep growing has certainly been very pronounced in New South Wales, and to-day, roughly, two sheep produce as much wool as three did ten or twelve years ago. But the improvement is not confined to this State. Victoria has also made vast strides, more particularly in respect to fine comebacks and fine crossbreds. Tasmania may be regarded as the stud sheep farm of Australia, and, naturally, a very high standard of excellence is aimed at. Splendid as these sheep mostly are, they are but 1 per cent of the sheep depasturing in Australia. Perhaps in the matter of sheep breeding Queensland and South Australia lag most behind. Still, South Australia can count among its sheep men some notable breeders. The "Murray" blood is a name to conjure with, and on the Darling Downs in Queensland such flocks as the "Talgai" are of high repute. Writing of wool growers as a class, after nearly twenty years' intimate acquaintance with them, I say unhesitatingly that their efforts are consistently directed to the improvement of their flocks and the land upon which the sheep are depastured. The climate in certain parts of our vast territory is at times very

trying for sheep, and careful upbreeding is resorted to to compensate for the effects of the heat. What in some parts is the best portion of the fleece — the back — is taken out in other parts of Australia, simply because the heat has perished the wool and made it “mushy,” a term well known as descriptive of a poor, dry, hungry staple of no strength. The wool user can therefore congratulate himself upon having an ally in the wool producer; the latter ever striving to bring his product up to the requirements of the former. Whilst this policy is pursued neither branch of this huge trade will have much to complain of.

In New South Wales we are now practically back to the total of 1897; but still a long way behind the figures of 1896. For the purpose of comparison I give the official figures for this State since 1896, a period which includes the great shrinkage between 1901 and 1902:

Year.	Sheep.
1897 .....	43,952,897
1898 .....	41,241,000
1899 .....	36,213,514
1900 .....	40,020,506
1901 .....	41,857,099
1902 .....	26,649,424
1903 .....	28,663,983
1904 .....	34,531,145
1905 .....	39,506,734
1906 .....	44,132,421
1907 .....	44,451,839
1908 .....	43,370,797
1909 .....	45,000,000

In 1896 there were 48,318,790 sheep in New South Wales.

The approximate number of sheep in Australasia to-day, on a very careful estimate, is as under:

State.	Sheep.
New South Wales .....	45,000,000
Queensland .....	19,000,000
Victoria .....	12,550,000
South Australia .....	7,000,000
Western Australia .....	4,500,000
Tasmania .....	1,745,000
<hr/>	
Australia .....	89,795,000
New Zealand .....	23,373,000
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Australasia .....	113,168,000

This compares with previous years as follows:

Year.	Sheep.	Year.	Sheep.
1897.....	103,270,628	1903.....	75,887,258
1898.....	99,225,139	1904.....	84,104,724
1899.....	92,410,156	1905.....	93,534,579
1900.....	89,958,190	1906.....	103,796,126
1901.....	92,273,310	1907.....	108,473,622
1902.....	74,011,074	1908.....	109,345,967
1909.....	113,168,000		



The number of sheep in Australasia in 1896 was 110,274,515, so that it will be seen that we are a little ahead of the figures of thirteen years ago. It may be interesting to remember that the flocks of 1896 produced 1,848,509 bales. It will be seen that the lambing of this year is expected to give us some 4,000,000 young sheep which are to counter-balance the carry-forward wools, and give us an increase in our exports of 250,000 bales. I am sure such a result will appear incredible to any reasonable-minded reader.

The wool clip, so far as can be judged from the early portion of the season, is distinctly better grown than the previous year's. There is an all-round improvement in length and character, but there is also less foreign matter in the wool. Unfortunately from the users' point of view there are unmistakable signs that burr is spreading more and more over the country, and naturally the wool carries a greater proportion of this pest. One of the most pronounced of this season's features has been the lack of superfine spinning wools. Naturally such wools commanded a premium when met with.

Right from the commencement of the season crossbreds sold remarkably well. Fine crossbreds and fine comebacks met with competition from America, Yorkshire, France, and Germany. For suitable lots the first-named market easily outdistanced all other competitors; there was quite a struggle to get some of the parcels that did not quite reach the standard of American requirements, though that standard was not a very high one this season. Our production of fine crossbreds and comebacks is not increasing appreciably.

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## FALLING WAGES AND EMPLOYMENT IN GREAT BRITAIN.

AMERICAN CONSUL GENERAL JOHN L. GRIFFITHS, of London, has presented in the "Daily Consular and Trade Reports" an authoritative summary, from British Board of Trade returns, of the reduced wages and decreasing employment in the United Kingdom at the present time. He says :

After a number of lean years, culminating with 1904, in which wages were constantly falling, an upward tendency was manifested which reached its climax in 1907. Beginning with the second quarter of 1908, and during the first six months of 1909, there has been a steady fall in wages, with an increasing number of workers out of employment. The wages of 464,000 persons were reduced in 1908, while only 119,000 received an increase. Of the number receiving the increase, 57,000 were employees of

the Government or of the various municipalities, 12,000 were textile workers, 11,000 were employed in the printing and allied trades, and 9,000 were engaged in the building trades. Of those receiving diminished wages, 83,500 were in the engineering and shipbuilding trades, 69,000 were employed in the manufacture of pig iron and iron and steel, and 283,000 were coal miners. In the first six months of 1909, 1,081,273 persons suffered a decline in wages, as against 6,439 who were benefited by an increase.

Stated in money values, the wage-earners of Great Britain were paid, on an average, \$287,956 less in wages a week for the last nine months of 1908 than in the same period of 1907, and in the first six months of 1909 there was a weekly diminution of wages of \$329,676. The coal miners were the principal sufferers in 1908, and continued so in 1909. In the first six months of the current year 846,750 employees in coal mines were compelled to work for a reduced wage. With the exception of those employed in the clothing and printing trades and the employees of local authorities and of the Government, it may be broadly stated that all British industrial wage-earners were receiving smaller compensation on July 1, 1909, than on the same date in 1908.

#### WAGE DIFFERENCE OF MEN AND WOMEN.

If the trade boards bill, which has been submitted in Parliament, should become a law, the Board of Trade will be authorized to establish a minimum rate of wages in all trades where there is satisfactory proof that the scale of wages paid is unusually low in comparison with the compensation received for similar work in other industries.

An interesting and significant fact disclosed in the report of the Board of Trade is that while the wages received by men in the tailoring trade are higher on the average than those paid in the textile trades, the number receiving less than \$4.86 per week being only 7.2 per cent as against 18.4 per cent in the textile trades, the women receive less in the tailoring than in the textile trades.

The following statement shows the difference in the wages paid men and women in certain industries in 1906, the latest year for which the Board of Trade shows such statistics:



Industry.	Average Full-time Earnings.	
	Men.	Women.
Dressmaking and millinery : <sup>1</sup>		
Workshop .....	\$12.38	\$3.36
Factory .....	7.69	3.75
Shirt, blouse, underclothing, etc.....	7.24	3.24
Tailoring:		
Custom.....	8.14	3.44
Ready-made .....	7.75	3.14
Boot and shoe, ready-made .....	6.96	3.18
Boot, shoe, and clog making, custom and repair- ing.....	6.96	3.04
Silk and felt hat.....	8.32	3.97
Leather glove .....	7.19	2.94
Corset, factory.....	7.03	2.96
Fur .....	8.65	4.03
Straw hat and bonnet <sup>2</sup> .....	8.89	4.82
Other clothing .....	7.35	3.14
Dyeing and cleaning.....	7.17	3.36
Laundry:		
Factory .....	6.36	3.12
Workshop .....	5.46	3.10
Average .....	\$7.33	\$3.28

<sup>1</sup> Exclusive of work people receiving board and lodging or partial board in addition to cash wages.

<sup>2</sup> For the straw hat and bonnet industry the earnings stated are for a representative week in the season; for other trades the earnings are for the last pay week of September, 1906.

The fluctuation in the wages paid to women in the same industry is especially noticeable, and is illustrated in the millinery trade, where 28 per cent of the women earned less than \$2.43 per week, while 15 per cent earned in excess of \$4.86 per week.

The lower wages paid to women is the rule and is not confined to any special industry or trade, but is common to all. One of the leading English newspapers states as its opinion that "independent existence on the wages paid to at least 20 per cent of the women workers would be an impossibility." It is only made possible by the circumstance that many of the women are not entirely dependent upon their earnings, but contribute what they receive to a general fund for the support of the family.

Eliminating meals and overtime, the hours representing a full week's work vary from 51 hours in millinery, dressmaking, etc., to 57 hours in the silk and felt industry.

All economic questions, especially those relating to unemployment, wages, hours of labor, provisions against the contingencies of old age, and general improvements in the environments of the worker are now receiving special attention in England.

## ENCOURAGING AND DISCOURAGING WAGE FEATURES.

The encouraging feature of the British labor situation is the subsidence of the number of strikes, boycotts and lockouts and the settlement of disputes between employers and employees on the principle of give and take, with the view of reaching, with the least friction and the smallest delay, a workable conclusion. This conciliatory spirit is illustrated by the fact that less than 2 per cent of the workers whose wages were reduced in 1909 suffered an interruption of work on that account. Of the workers affected, 62.4 per cent had their lower wages determined by wage boards, arbitration, etc., 31.1 per cent by direct negotiation between the interested parties, and 6.5 per cent by an automatic sliding scale. Writing in totals, the decrease in wages in 1908 (the decline did not begin until the second quarter of the year) was \$4,252,348 as against increases, respectively, of \$6,905,563 in 1906 and \$28,327,896 in 1907.

There was a reduction in 1908 of 38,400 hours in the weekly working time of wage-earners of Great Britain. In the first six months of 1909, 189,000 working people had a reduction in their working hours aggregating 46,836 hours per week, and 221 had their aggregate working time increased by 332 hours per week.

It will thus be seen that falling wages still continue in Great Britain, notwithstanding the favorable showing made from month to month in the volume of imports and exports.

The tense condition of the labor market is further emphasized by the statistics of unemployment. In the first three days of registration in October, 1909, by the unemployed in London, 2,500 more persons applied for work than in the corresponding three days a year ago.

In the figures which have been given in this report only industrial laborers have been included, while agricultural laborers, seamen, and railway servants have been expressly excluded. The statistics, however, affect an industrial population of 10,000,000 people, and are therefore sufficiently comprehensive to indicate the labor trend of the whole country.

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 SENATOR LODGE ON WAGES AND PRICES.

HON. HENRY CABOT LODGE, senior Senator from Massachusetts, addressed the Senate in Washington on January 28, 1910, on the theme of wages and prices as affected by the tariff. Mr. Lodge presented a series of most significant statements from official data bearing on comparative wages in productive industries between this country and Europe, and comparative prices of the necessities of life. This address was the result of an

exhaustive inquiry, and it is so timely and valuable that it is being printed in large numbers for distribution throughout the country. As a member of the Committee on Finance, Senator Lodge bore an important part in the recent revision of the tariff, and he is a most powerful champion of the protective policy. Some of the official statements which Mr. Lodge presented bearing on the subject of wages in the woolen and worsted industry were as follows :

Report of United States Consul Robert J. Thompson on the woolen industry in Hanover, Germany (United States Consular Reports, 1909) :

"There is one wool washing and dressing factory in this district employing 1,000 males and 800 females, ten hours constituting a day's work. Every department works with night shifts. The daily wages paid in this factory are as follows :

Description of Work.	Males.	Females.
Yard work .....	\$0.78	
First sorting .....	.75	\$0.46
Washing and carbonizing.....	.78	
Second sorting .....	.75	.46
Second washing .....	.78	
Carding .....	.54-.78	
Combing.....		.48
Ironing.....		.48-.53
Chemical department.....	.84	
Inspectors .....	.84-1.02	

#### "WEAVERS' WAGES AND MACHINERY.

"The wages of foremen working in the principal corduroy and cotton velvet factory vary according to the wages of the male and female weavers working under them, and amount to about 30 to 40 marks (\$7.14 to \$9.52) per week. Other foremen and the master weavers get fixed weekly wages, varying from 24 to 80 marks (\$5.71 to \$19.04) according to the ability and the responsibility of the men.

"The male and female workers in the weave room and in the shearing establishment do piecework and earn 15 to 28 marks (\$3.57 to \$6.66) weekly, according to their ability. One workman generally runs two looms; the more skilled run three. The men and women working in other branches of this establishment earn, on the average, about 3.30 marks (79 cents), according to the kind of work they do, per day of ten hours' work, viz. : 6 to 8, 8½ to 12, 1½ to 6 — that is to say, twelve hours with two hours of rest, as indicated."

Report of United States Consul Edward Higgins on wages paid in the woolen yarn industry in Stuttgart (United States Consular Reports):

"The wages paid overseers vary from 120 to 200 marks (\$28.56 to \$47.60) per month. A female operative earns from 2 to 2.8 marks ( $47\frac{1}{2}$  to  $66\frac{1}{2}$  cents) per day and a male operative from 3 to 4.3 marks (71 cents to \$1.02) per day. Eleven hours a day constitute the regular hours of labor for six days in the week."

Report of United States Consul E. T. Liefeld on wages in woolen mills of Freiberg (United States Consular Reports):

"Ordinary laborers in the mills are paid from 48 to 71 cents per day, their overseers from 71 cents to \$1.20, while skilled laborers are paid as high as 95 cents, and their overseers \$1.67."

#### FRANCE.

##### *Aix La Chapelle.*

Report of United States consul at Aix la Chapelle on wages in woolen mills of that city (United States Consular Reports, 1909):

"The foreman of the spinning department (spinning master), from \$9 to \$14; the operatives, from \$5 to \$6; and other help, mostly girls, from \$4.50 to \$5 per week.

"The foreman of the weaving department (weaving master), from \$9 to \$14, and the regulators or setters, from \$7 to \$10.50 per week. Weavers are paid \$5 to \$9 per piece, and if capable and diligent can finish one and a half pieces of 43.6 yards at \$5, or one piece at \$9 each week. They earn on an average \$1 to \$1.40 per day. . . . The mistress of the darning department receives from \$8 to \$10 and her assistants from \$5 to \$7 per week."

##### *Lille.*

Sorters .....	\$6.96
Packers and unpackers .....	5.76
Scourers .....	4.32
Dryers .....	3.14
Combers .....	4.64

Statement of Thomas H. Ball, Philadelphia, Pa., in regard to wages in Woonsocket, R.I., and France and Belgium (Tariff Hearings, p. 5766):

"Comb minders receive in England \$4.30 to \$4.75 per week, as against \$6.50 to \$8.50 in our mills here; drawers receive \$2.80 to \$3 in England, as against \$6.50 to \$7 here. Boys, \$2.12 to \$2.24 in England, as against \$4 to \$5 here. Girls in spinning rooms receive \$2.24 to \$2.75 in England, as against \$5 to \$7 here.

"In regard to the French system of spinning, the writer represents Jules Desurmont & Sons, Tourcoing, France, who have recently established a branch at Woonsocket, R.I., and the fig-

ures below are the wages paid by this concern in Woonsocket and in their mill in France.

“Wages paid here for spinners, \$16 per week; in France, \$6.50 per week. Piecers, paid here \$12 per week; in France, \$4.50. Drawing hands, \$6.50 here; in France, \$3.25. Twisting, spooling, and reeling, \$6.50 here, and \$3.25 in France.

“Being interested in some mills in Belgium, are in a position to state with full knowledge that the wages in Belgium in this line of work is on an average of 5 per cent cheaper than in France, and in Germany on this same line of work the wages rule from 10 to 20 per cent lower than in France.”

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### CHINESE WOOLEN FACTORIES.

CONSUL AUGUSTUS E. INGRAM sends from Bradford the following extract from a report by the British commercial attaché in Peking on the establishment of two woolen factories in China:

A new move is about to be made in the introduction of woolen clothing for the modern drilled army of China, and this may possibly prove the first step toward the more general adoption of woolen clothing throughout the country, a result which followed the same action in Japan. Unfortunately for the British manufacturer, there are indications that China means to supply her own demands in this respect. Two Chinese woolen factories have been recently established, which will deal with the requirements of the army board for woolen clothing. One is at Shanghai, a large building fitted with up-to-date Belgian machinery and employing at present several Belgian operatives to teach the Chinese students. I am told that this factory is capable of turning out sufficient clothing for 1,000,000 men. The other was established in 1908 at Chingho, about six miles from Peking. It is well equipped with British machinery and employs three or four British operatives. If the civilians of China show any inclination to follow the lead of the army in wearing wool, there is little doubt that the number of such factories will increase. It is perhaps too early to predict an opening in this connection for Bradford tops, but it must be remembered that a demand for tops followed close on the establishment of woolen manufactories in Japan.

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### IMPROVED WOOL PACKS.

CONSUL AUGUSTUS E. INGRAM, of Bradford, reports concerning the British complaint of vegetable fibers in wool:

The Council of the Bradford Chamber of Commerce has



received a letter from its two delegates to the recent conference in Australia of the Chambers of Commerce of the Empire, with reference to an improved wool pack now used by Dalgety & Co., in Sydney. The pack, which the delegates said was the best they had seen, was described as an ordinary Calcutta pack put through a solution of algin, a glutinous substance made from seaweed, and rolled out to a perfectly smooth surface, thereby removing the danger of loose fibers getting into the wool. Messrs. Dalgety had so much faith in the process that they had already ordered 50,000 of the new packs. Whether the sizing would last for several months through many changes of temperature has, of course, still to be proved, but if successful in this respect there is no reason why the process should not be universally adopted, as the cost was only 6 to 12 cents per pack, to which no grower would object.

The delegates had also seen in Australia a new kind of pack with only seven stitches, which were easily removed and kept entirely apart from the fleeces.

A number of English firms have signed and issued a circular letter informing growers that they have requested their buyers to give special attention and preference to wools that are prepared and packed according to the recommendations of the Vegetable Fiber Committee. According to one local expert, the best packs to be used in order to minimize the presence of vegetable fiber or hemp in wool are those with a corrugated paper lining.

## BRITISH WOOLEN AND WORSTED PRODUCTION.

CONSUL FREDERICK I. BRIGHT, of Huddersfield, furnishes the following information concerning the British woolen and worsted industries, as given in the preliminary tables of the first census of production for the United Kingdom, recently issued by the Government:

All woven goods known as woolens and worsteds made for sale in the United Kingdom in 1908 show a total value of \$195,735,494, as detailed in the accompanying table.

The total value of these woven fabrics produced in the United Kingdom, after excluding \$20,590,160 for carpets, rugs, and furniture stuffs, is \$175,145,334. The total production of the United States for substantially the same classes of goods, according to the census of 1905, was \$234,820,240.

Owing to the refusal of manufacturers to furnish information, the report does not give statistics as to the total quantity and value of woolen and worsted yarn spun. The returns received show a total value of about \$102,196,500 of yarn spun for sale



or for stock, which amount does not include yarn "spun and used in the manufacture of other goods for sale by the same firm."

The net value of products from woolen and worsted mills is given at \$94,663,158. This amount is arrived at by subtracting the cost of all raw materials used and the work done on those materials from the value of the total output.

The average number of persons employed is 257,017, of which 247,920 are wage-earners and 9,097 working on salary. The sex and ages of those employed are as follows: Males under 18, 21,953; over 18, 89,485; females under 18, 34,087; over 18, 111,492; total males, 111,438; total females, 145,579.

The following table shows the quantity and values of wool manufactures for the United Kingdom, under the census of production act, for the year 1908:

Description.	Quantity.	Value.
Woolen tissues, broad.....yards..	137,188,000	\$71,557,016
Woolen tissues, narrow..... " ..	35,328,000	8,331,448
Worsted coatings and trouserings, broad..... " ..	47,267,000	40,537,945
Worsted coatings and trouserings, narrow..... " ..	7,236,000	3,518,479
Worsted stuffs, dress goods, linings, lastings, etc... " ..	126,410,000	31,797,711
Damask tapestry and other furniture stuffs..... " ..	2,608,000	1,202,025
Wool and mohair plushes..... " ..	3,077,000	1,605,945
Flannels and delaines..... " ..	47,380,000	8,496,909
Carpets..... " ..	26,159,000	16,239,510
Rugs, other than traveling rugs { .....square yards..	3,859,000	2,949,099
Blankets .....number..	178,000	199,526
Shawls .....pairs..	3,071,000	7,046,692
Coverlets, traveling rugs or wrappers.....number..	1,290,000	1,104,695
..... " ..	828,000	1,148,494
Total .....		\$195,735,494

## THE UTILIZATION OF WASTE PRODUCTS.

At a recent meeting of the Huddersfield Technical College, the losses arising in the wool manufacture because of inattention to the saving of waste or by-products, or because of crude and imperfect methods of preventing such losses, was ably discussed, and particular attention was directed to the great opportunity for saving presented by improved ways of securing the grease, potash, wool-fats, etc., removed in the washing and scouring of greasy wool, and also of recovering the oils used for lubricating wool after cleansing, to facilitate its manipulation in the spinning and weaving operations. The Hon. B. Broadbent, an alderman of Huddersfield, presented a valuable paper, much of which is here reproduced, from which it appears that not only can the process of saving be so conducted as to furnish a material

addition to the income of the plant, but that the resulting purification of the streams and water courses on which the mills are located will amply justify the outlay requisite to establish complete plants for the recovery of materials, heretofore permitted very largely to go to waste. At the present time, when the efforts of the brightest minds are directed to the economies of manufacture, the subject presented is well worthy of consideration. Mr. Broadbent is reported as follows :

Alderman Broadbent described waste as economic crime ; it was economic heresy from the industrial point of view. Waste, indeed, was the unpardonable sin and the deadly enemy of industrial righteousness. Limiting himself to the staple industry of Huddersfield, the manufacture of woollen and worsted goods, he dealt with only one small department of the work — the subject of the waste waters from the fulling and scouring process. For about seven years he was a member of the West Riding Rivers Board, and a member of the sub-committee that dealt with pollutions of streams caused by manufacturers' effluents, and it was his experience in that public work that first opened his eyes and understanding to the fact that perhaps the worst pollution of our streams was caused by the large quantities of valuable and recoverable matter which was poured into them from the woollen industry in particular. Woollen manufacturers were doing two bad things at once — in the first place they were throwing away what was worth money, and in the second place they were making the streams noxious and offensive and dangerous to health. It was one thing to know that an evil existed, but quite another to suggest a remedy, just as it was one thing to know that there was a leakage of value in the processes of manufacturing, but quite another to find where the leakage was, and how it could be stopped. That was his own state of mind for many years. He knew that from our woollen mills there was going away year by year hundreds of pounds of valuable material, which, as a member of the Rivers Board, he knew also was a filthy pollution of the streams which the Board had been established to cleanse. But he did not know whether the cost would not be as great as the value of the material. Now, however, the position was very different from what it was. He knew not only by inquiry, but by experience, that there was a waste in the effluent both from wool scouring and from piece scouring. He came now to his task of trying to show where the waste occurred, and how it might be recovered.

Raw wool was greasy as well as dirty, and though considerable quantities were now imported scoured or half scoured, yet there were enormous weights still scoured in this country. With the double object of learning how to recover any valuable matter in the effluent, and of learning how to purify the streams, he visited

personally a very large number of works in the West Riding and elsewhere where attempts were being made to do this. Over and over again he was intensely disappointed to find how totally ineffective and how exceedingly costly many of these attempts were. But there were some he saw that seemed to give promise of success, some, but very few, that were actually successful, and he carefully noted in the cases of failure what seemed to be the cause of failure, and in the cases which were successful he noted what seemed to be elements of success, and where there seemed to be weakness in even a comparatively successful plant. Thus by slow and gradual steps he arrived at the conviction which now seemed obvious enough, that the recovery of valuable products in the effluents and the purification of the stream were precisely one and the same thing. By taking out of the effluent what was of value the stream was purified. But it was soon possible to come to a fuller conclusion in reply to the further question as to the cost of recovery — that it was actually a very profitable thing to purify the stream; as the recovered value far more than paid the cost of purification. Some years ago he had the opportunity of seeing a plant which recovered not only the grease but the potash from the effluent, and also returned the water for re-use. This was by means of evaporation, centrifugal separation, and burning, but the plant was exceedingly heavy in cost both for construction and in working, and it has not been adopted. The process was an exceedingly fine one, and recovered practically the whole of the recoverable material in a very pure state, and there was nothing left over except a comparatively small quantity of ash. The more general method now in general use by those combers who treated their effluents was by the same process as was applied to piece-scouring effluents, or by a process so similar that it would be a repetition to describe it. A very large quantity, however, of the Bradford effluent was turned into the public sewers, and he understood that it was a part of the Bradford scheme for treating the sewage of the city to remove the grease at the outfall works. It would be interesting to see what results were obtained by this process when it was actually in operation. The quantity of grease in a wool scouring effluent was so large and so obvious that it was not surprising that it has received a larger amount of attention than the less obvious piece-scouring effluent.

Dealing with piece-scouring effluent, he said it contained all the material that was removed from the piece in washing it clean, and all the material that was put on to the piece to facilitate the milling. They knew perfectly well what those materials were — there was first the grease, which might have been left in the wool, and then the oil, which had been added for lubricating the material so as to make it work through the various processes, teasing, condensing, spinning, and weaving, and finally the soap and ash used in scouring and milling. Besides this there was what may be called miscellaneous dirt of various kinds, which

had been collected in the whole series of operations. Every part of all those added waters had to be removed from the manufactured piece, and the whole passed away in the scouring effluent. But besides that added matter there came away a very large amount of fiber, which was detached in the milling and scouring. Ordinarily the fibrous material was disposed of by sieving through perforated copper, or some other kind of perforated medium, but it was very well known how imperfectly this was done as a rule, and in spite of the ordinary sieving arrangements it was always found that there were a large quantity of flocks in the effluent. For any proper treatment subsequently it was of very real importance that the whole of the flocks should be kept out, and there was, too, a certain value in the flocks if they were retained. Though he was on delicate ground, he thought he was bound to say that an apparatus had been devised by which the whole of the fibrous matter was removed from scouring effluent, and the same machine was equally useful for the same purpose with dyeing effluents. There was a fair number of these at work in various mills in this neighborhood. After they had got their flocks out of the effluent they had simply the soapy water to deal with.

They knew the oil was there, how were they to get at it and keep it? How were they to separate it from the water? There was no free grease at all, the effluent was an emulsion, and they had to break this up before they could do anything with it. Add a little sulphuric acid and at once the cracking was done. The salts which had formed the emulsion in combination with the oil, as soon as the acid is added, at once left the oil, and combined with the acid. That was very easy if they had a gallon or two to deal with in a laboratory, and could add the acid in the pipette, but they had to deal with perhaps 20,000 gallons in a day. In the laboratory it did not matter very much whether they had an excess of acid, but when they were doing the thing on a large scale and a commercial basis, and with a view of saving money, an excess of acid was waste and expense. And besides, if they had an excess of acid they had an acid effluent, and if they were on a stream their neighbors below would soon discover it, and if they turned it into the sewers somebody would find it out and complain. So it became a very necessary question as to how they were to apply the acid. The old way was to empty a "piggin full" into a tank and then stir it up with a "pusher." That was a method to be avoided. For sulphuric acid was a substance with a character: it was very strong but very lazy. If they poured a piggin full of acid into a tank what happened was that the acid went straight through, then it spread itself out along the bottom, and there it stopped. Moreover, there was the danger also in having the acid in any mass together; it would separate the grease from the ash, but it would also carbonize the grease if there was an excess of acid to come in contact with the grease, and so the grease turned to charcoal.



So instead of emptying a pigginful of acid into the tank they would add it drop by drop, and they would add it, if at all possible, drop by drop into the greasy effluent as it was flowing into and filling the tank. And all the while the tank was filling they would keep the effluent, with its added drops of vitriol, in violent agitation, so that their idle friend the acid might have no rest at all, but be compelled to do all the work that was in him, and use up all his strength in releasing the grease.

By thus adding sulphuric acid and making it exhaust itself in releasing the grease they had attained the first steps in the process at a minimum expenditure of acid and at a minimum cost of labor. It could be done so perfectly that there was hardly an atom of grease left unseparated and hardly an atom of acid left. At this stage they had the grease all separated and free, but it was in a tank still mixed with a large quantity of fluid. If they stopped the agitation the grease would usually rise to the surface and make a cover over the tank. It was not unlikely that the agitation had a churning action coagulating the freed grease as well as the mixing action already referred to. It was not, however, by any means invariable that the grease would rise to the surface; in some cases it would sink to the bottom, and sometimes it hung between in doubt whether to sink or swim. The difficulty now was to get the water away and retain the grease in the tank. Any one who had tried to solve the problem of how to get the water away without losing any of the grease would know what a very perplexing one it was. There were various means for doing this — floating arms, etc.; but by far the best and simplest was a grease trap adapted by one of the largest manufacturers in this county from an appliance used by his mother to separate cream from milk. The thorough efficiency of this separator would be understood when he said that from one of the premises where the process thus far described was in operation, the analysis of the West Riding Rivers Board of a sample taken for examination showed .18 per 100,000 parts, or 2 parts per million of grease. He had not distinguished, though he had indicated differences, between several methods of agitation of the tanks after adding the acid. There were three different methods — by mechanical agitators, by air jets, and by steam. He strongly preferred the first. There were other variations of the process described. As, for instance, in some cases flue dust was added to the tanks so as to carry the grease down to the bottom of the tanks, and so make the drawing off the top water a little easier and less liable to take the grease with it. But to add bulk was always objectionable, if it could possibly be avoided. After they had arrived at the stage when they had drawn off the water and left behind the grease, the method of extraction would be familiar. The sludge or magma containing the grease was drawn from the bottom of the tank and deposited on suitable fillers where it solidified to the consistency of a soft butter. It was then put into bags and pressed by

hydraulic power in a steam-heated oven press. A stream of oil and water flowed out from the press, the mingled liquor flowed into one tank, where the oil and water separated themselves. The oil was pumped into a purifying tank, where the grosser impurities were taken out, and then passed into a tank, from which it could be drawn off into casks for sale. The press water was rather acid and very foul, and was pumped back for treatment. The cake left after the oil was pressed out formed a fairly good fuel or could be used for manure.

The results of the process he had described were first flocks, then oil, then a fuel or manure, and lastly water sometimes slightly acid and always hard, but with a very slight neutralizing arrangement fit for any stream. He did not think they would have any hesitation in saying that such a process was undoubtedly good so far as the end aimed at was purification of the streams or making the effluent suitable for the sewers, but they might have their doubts as to whether there was any profit to be made out of it. He would be very glad if he could satisfy their doubts by what might be called a scientific or mathematical demonstration, and it ought to be quite possible to do this if woolen manufacturers were at all a scientific set of men, but they were not, and as he was speaking to young men let him say that he believed that the first man that applies exact science to woolen manufacture in all its branches would make a fortune for himself and be a benefactor to the race, for we all wanted clothes, and the man that would give us cheap clothes, scientifically constructed for warmth, wear, and comfort, would be nothing less than a public benefactor. Let him tell them what could be done by this process. Fully 75 per cent of the grease that was in the piece when it reached the scourer could be recovered. Of the soap used in washing out the grease and dirt—suppose it to contain a minimum of 60 per cent of fatty matter—45 per cent could be recovered. But there were very few manufacturers who calculated what oil was in the piece, there were comparatively few who knew, because they buy part of their material already oiled, and of the wool they used they knew very little indeed as to what was wool and what was grease, or even what was dirt. So that it was at present a question he could not answer as to what quantity of oil was in a piece. Most manufacturers, however, did know how much a piece lost in the scouring and milling, and it was rather a surprising amount. The loss varied from 25 per cent in a heavy low woolen to as little as  $7\frac{1}{2}$  per cent in a worsted. Roughly, not scientifically, they could guess what amount of that was grease; for as a matter of fact it was nearly all grease. There was some dirt, but not much, and there was some flock, but they would agree that the less of that the better, but however the piece was made there would in proportion to the quality be flock, but dirt and flock together did not weigh much. So that they would be fairly safe in taking the loss of weight in the milling and scour-



ing as a fairly good indication of the oil washed out and passing away in the effluent.

Let him assume that they were dealing with a medium fancy piece that weighed — just for the sake of simplicity, say, 100 pounds. It lost a little over 20 per cent in the scouring and milling, and of the loss in weight nearly the whole was oil, say 5 per cent dirt and flock and 15 per cent oil. That was 15 pounds weight of oil was washed out of one piece. Calculate what that was on 200 pieces a week. They had 3,000 pounds of oil going away in a week. Take it at the round figure of 1 ton, and he thought it would rather surprise them to think of 50 tons of oil going away from a 200-piece concern every year. To recover that would need a plant costing, say, £500. The working cost would be in material £100, in labor, say, £65, interest and depreciation at 10 per cent £50, a total of £215, and the value of oil recovered about £400. The flocks and fuel would more than cover the cost of power. This was a more or less theoretical balance-sheet, but it corresponded very nearly with the actualities. Let him place before them an actual balance-sheet taken from a plant not in this town. On a plant costing £547 10s. for the quarter ending September 30 the profit was £61 5s. 5d., at the rate that is of over 44 per cent on the outlay. That was exceptionally good, but the same plant for twelve months up to June last showed £177 14s. 10d., or over 32 per cent profit. He mentioned another case where the system had been in operation just twelve months on June 30th last. That showed a balance of £124 15s. 8d., including all the initial expenses on an outlay of £572 on the plant, *i.e.*, over 20 per cent on the outlay on the plant. He had not mentioned the most favorable example he had figures for, as it was at his own firm's premises, and as the process had been worked under careful observation it might be considered that there was some favorable prejudice in that particular case. He would, however, like to mention one further case where he had no figures at all to show, yet the results spoke for themselves. In this case the oil extracted was re-made into soap and used over again, and there seemed to be established a complete circle of use, as only a very small quantity of new soap had to be purchased.

He ought in fairness to give something on the other side. The results were not always as good as those he had named, but he was inclined to think that there might be special reasons for the comparatively unsatisfactory results in some cases. It was quite certain that no process could recover what was not there, and if the pieces had no oil in them, and if low grade soap was used in scouring it was obvious that nothing could be got out. Another reason might be that an undue amount of ash was used in the scouring. If that were the case it would necessitate an undue expense in recovery. Again, if fuller's earth was used at all they introduced a most difficult element, and he had had to decline altogether any attempt to treat an effluent where a large quantity

of fuller's earth was used. Chemists would understand readily the very important bearing that the use of scouring material had upon the treatment of the effluent, and it was rather remarkable how completely treatment might be baffled by certain materials sometimes used in scouring. In solving this difficulty for himself and for some other people at no loss, but on the contrary at a profit, he considered that he had done something useful, and he recommended to young men the task of setting themselves to bring about other improvements in the industry in which their lives would be spent.

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### JAPAN IN WOOL MANUFACTURE.

THE advance of the Japanese in the wool manufacturing industry is brought out in a striking way by an article in "Dalgety's Review" for January, discussing Japan as a great future market for Australian wool. Dalgety says:

One of the most interesting points for discussion in connection with the future development of the wool industry in Australia is the great possibilities of our trade with the East. The awakening of the Eastern nations during the past two decades has astonished the civilized world, but it is questionable whether we in Australia fully realize the great part which they are destined to play in the future in adding to the wealth of pastoral Australia. The woolen industry in Japan has made great strides during the past ten to fifteen years, but is as yet only in its infancy; while in China it is not yet out of the experimental stage. The handwriting on the wall, however, admits of easy translation, and it points to a revolution which may be nearer than is generally imagined. Lord Masham's historic forecast at the opening of the Cartwright Memorial in Bradford is worth repeating in this connection. "I have a very strong impression," he said, "that the East will overcome the West in the coming years, and that instead of our clothing the East they will want to clothe us."

The question for discussion is whether such a state of affairs is within the realms of possibility, and, if so, what will be its bearing upon the wool industry of Australia? At the very outset it must be admitted that the wool industry of the East will be dependent upon Australia for its supplies of raw material. Whether it takes the form of "tops" or raw wool may be a matter for discussion, but that the Eastern nations will look to Australia for their supplies is a basic fact upon which all assumptions must rest.

The Eastern nations have tried their hands at sheep-breeding, but candidly admit that they have not been successful, and that

they cannot hope to produce either the volume or quality of wool which they will require. At the beginning of the progressive era in Japan it was thought possible to grow the wool required. Fully thirty-five years ago the Japanese Government sent to Australia a commissioner to purchase some merino flock sheep, with which it was proposed to establish the nucleus of its natural flocks. This representative purchased rams from Gamboola Station, Molong, and ewes from Belltrees, Scone, and it is interesting to note that the progeny of these early importations are to be found to-day in the Imperial Experimental Stud Farm, which is situated about one hundred miles from Tokio. The sheep were shipped from Sydney, and were landed safely, and the Japanese tried their hands at sheep husbandry. It was soon abundantly clear that the destiny of Japan did not lie in wool production, but rather in manufacturing the raw material produced to such a degree of excellence in Australia, and from that time more and more Australian wool has found its way to Japan. Of late there has been an increase in the number of Japanese operators in Australian centers, and what is more to the point, their requirements have broadened. At the outset they took only scoured wools, but to-day they purchase almost every description of the staple. This is a very important point to consider, because it forcibly advertises the fact that the Japanese have made great strides in acquiring the art of successful wool manipulation. Up-to-date machinery has been installed, and the Japanese cadets have studied in various countries the details of the wool business, and the next few years should see a much increased volume of business. The great task that the Japanese had to learn was to be able to handle and blend the wool to the greatest possible advantage. Naturally this class of knowledge could only be acquired gradually, but evidences are not wanting that they have already made great strides in this connection. There is a big possibility of a very large trade being done with Japan in tops made in Australia. Pioneering shipments have been very successful, and the tops can be landed in Japan cheaper than those imported from the old country. The quality of the Australian tops has been found to equal that of those received from the old world, and a big trade must naturally follow. As time goes on, however, it is probable that Japan will go in for top-making herself, but from a wool-grower's point of view it matters little whether our wool goes there in the raw state or in tops, so long as this new customer deals with Australia, and the time is surely coming when this will be so.

So far as China is concerned the development is not so far advanced, but it is proceeding steadily, and the day may not be far distant when China will be one of our best customers for wool. The Chinese have watched the progress of the Japanese woolen industry with envious eyes, and what Japan has done China can also do. Mills have been erected, and equipped with

modern machinery, and, although the industry will no doubt take years to develop, Australia will in the end benefit very materially by the increased competition for her wools among the Eastern nations.

It is recognized in old world manufacturing centers that the solution of Japan's trouble with her big population is to become a manufacturing nation to supply the wants of the world. The cost of production can be reduced to a point which will enable Japan to enter the world's markets with a big advantage in cheap and abundant labor. With her progressive policy and forward spirit it is easy to imagine big and well-equipped woolen mills in the near future turning out a huge quantity of cheap goods. Already American manufacturers are up in arms over the fact that Japan is gradually ousting U.S.A. manufacturers from China in connection with the cotton trade. In plain cottons the American trade with China has fallen from 12,600,000 pieces a year to 1,600,000 in 1908, and Great Britain's trade has diminished from 13,500,000 pieces to 9,000,000; whilst Japan has gained from 800,000 pieces to 1,000,000, and the awakening has only just begun.

The Australian wool-grower may imagine that the opening up of a big market in Japan and China will not really affect him, as what trade they do will result in less trade with older countries. This, however, is not the case. All the old world countries have to deal with increasing population, and merino wool will not be a drug on the market for very many years to come, if ever. The Eastern demand, however, will come to Australian markets, and will help to keep wool values permanently upon a remunerative level. On the whole we have everything to hope for in an extension of our business with the East.

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## DECISIONS OF THE TREASURY DEPARTMENT ON THE WOOLEN TARIFF.

(T.D. 29998.)

SEPTEMBER 11, 1909.

**Abstract No. 21818.**—STANDARD SAMPLES—WOOL CONTAINING MERINO ADMIXTURE.—Protest 364120 of Henry Mote & Son (New York). Opinion by Chamberlain, G.A.

Merchandise classified as wool, first class, was claimed to be free of duty as animal hair under paragraph 571, tariff act of 1897. Assessment affirmed.

**McCLELLAND, General Appraiser (dissenting):** . . . It is evident that the real basis for such conclusion is that, by comparison, the sample of the merchandise involved is found to be of a grade equal to standard



sample of wool No. 138, deposited in the principal custom-houses of the United States under the authority vested in the Secretary of the Treasury by paragraph 352 of said act, and that the official sample, Exhibit 1, shows traces of merino blood in the animal from which it was clipped.

Paragraph 353 of said act reads as follows :

Whenever wools of class three shall have been improved by the admixture of merino or English blood, from their present character as represented by the standard samples now or hereafter to be deposited in the principal custom-houses of the United States, such improved wools shall be classified for duty either as class one or as class two, as the case may be.

It seems to me to have been the intent of Congress, in framing this paragraph, that only where an animal that would ordinarily yield wool of Class 3 had been so *improved* by the admixture of merino or English blood as to produce a higher grade of wool, should its clip be classified as Class 1 or Class 2, as the case may be.

I am unable to find from the evidence that there has been, within the meaning of the language of said paragraph 353, any such admixture of blood as to raise or improve the standard of the clip of the animals from which the merchandise involved was shorn. The most that any of the witnesses are willing to say is that in this so-called hair or wool there is a trace of merino blood; but the mere fact that in the clip of the degenerate animal from which this substance was taken there is found an almost infinitesimal proportion of fiber that indicates merino blood is not, in my judgment, sufficient to warrant the classification of the entire importation as Class 1 wool.

It is in evidence, and not controverted, that in the markets of the United States the hair or wool in controversy has a value, duty paid in its washed state, of from 12 to 16 cents per pound, and that it is only fit to be used as an adulterant with low-grade wools in the making of carpet and rug yarns.

The appraised value of the merchandise is 6½ pence, or about 12½ cents per pound, and it is inconceivable that Congress ever intended that a duty of 22 cents per pound should be levied on merchandise of such character and value.

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(T.D. 30006.)

*Olive oil.*

Denaturing of olive oil under paragraph 639, tariff act of August 5, 1909.

TREASURY DEPARTMENT, September 23, 1909.

SIR: The Department duly received your letter of the 4th instant, relative to certain proposed denaturants for olive oil.

The Secretary of Agriculture expresses the opinion that gasoline or

naphtha would not be a safe denaturant, on account of the ease with which it could be removed by simply distilling off the gasoline, which has a very low boiling point.

Regarding the question of a more specific designation for spindle oil, the Secretary of Agriculture advises that it would be sufficient to specify that a petroleum oil of a specific gravity of .895 to .906 be furnished, and that this is a readily obtainable commercial product which is sold and handled largely on the basis of its specific gravity.

You will be governed accordingly.

Respectfully,

JAMES B. REYNOLDS,

*Acting Secretary.*

(67686.)

COLLECTOR OF CUSTOMS, *Providence, R.I.*

(T.D. 30187.)

*Olive oil.*

BALABAN *v.* UNITED STATES.

U.S. Circuit Court, Southern District of New York. November 8, 1909.  
Suit 5424.

FINDINGS BY GENERAL APPRAISERS — DOUBTFUL QUESTIONS OF FACT. — On appeal from the Board of General Appraisers the Circuit Court should not disturb the Board's findings upon doubtful questions of fact, especially as to questions which turn upon the intelligence and credibility of witnesses who have been produced before the Board.

ON application for review of a decision by the Board of United States General Appraisers.

[Decision in favor of the Government.]

The opinion below, reported as Abstract 20074 (T.D. 29409), affirmed the assessment of duty by the collector of customs at the port of New York on merchandise imported by Th. P. Balaban. The Board's opinion reads as follows:

MCCLELLAND, *General Appraiser*: This protest is against the assessment of duty on 59 barrels of olive oil at the rate of 40 cents a gallon under the provisions of paragraph 40 of the tariff act of 1897, the claim being that it should have been admitted to free entry under the provisions of paragraph 626 of said act. The foreign value appears by the record to have been under 60 cents per gallon, and therefore the only question involved is whether the oil as imported was limited in its use by reason of its condition or quality to manufacturing or mechanical purposes.

It appears that the 59 barrels in question were selected for duty from an importation of 200 barrels, the remaining 141 barrels being passed free of duty.

The appraiser in his special report on the protest states:

"Upon examination the oil contained in the 59 barrels numbered upon specification attached to the invoice was, in the opinion of this office, fit for other uses than for manufacturing or mechanical purposes."

A number of witnesses were produced and testified on behalf of pro-



testant that the oil in question was not suitable for use as an article of human food. One of such witnesses (Phetteplace), in defining an oil which in his judgment was suitable for table use, stated (p. 36):

"An oil suitable for edible purposes should be pressed cold or at a normal temperature, and great care taken in the selection of the fruit; also, it should be filtered through cotton, thereby producing a pale yellow oil; it should be mild in taste and agreeable, and should not contain over one-fourth of 1 per cent of free fatty acid."

By what standard the other witnesses for protestant determine the question of fitness of the oil does not appear, but experience has demonstrated that the rule laid down by the witness Phetteplace is not reasonable, and that the standard, particularly as to the amount of free fatty acid that an edible oil may contain, is ridiculously low.

Of the official samples, collective Exhibit 2, the Government caused 12 thereof, selected indiscriminately, to be submitted to the New York Bureau of Chemistry of the United States Department of Agriculture. These samples appear to have been examined jointly by the witness Woodruff, a graduated chemist, and by the witness Doolittle, also a graduated chemist and chief of the said laboratory, who defines his duties to be the examination of food products imported into the United States under the food-products act of June 30, 1906. Doctor Doolittle is shown to be a graduate of the Michigan University and to have been State analyst of the State of Michigan for twelve years, and since the year 1904 in charge of the laboratory of the United States Department of Agriculture at New York. In detailing the examination of the samples marked "Exhibit 3" Doctor Doolittle says (p. 58):

"I submitted it to chemical examination to determine whether or not there were any foreign substances present and such physical tests to determine their suitability for food purposes. This was from September 13 to September 25. During that time, ten to twelve days it took to complete the same, and from the results of such examination and the physical examination the samples were found to be perfectly suitable for food purposes."

The result of the chemical analyses is in evidence (Exhibit 4), and the percentages of free fatty acid found are shown to range from .64 to 1.32 per cent; and in said report it is noted:

"All samples are pure olive oil. In appearance, color, odor, taste, etc., they compare very favorably with olive oil ordinarily imported and on the market for table use."

Paragraphs 40 and 626 must be read together in determining the law as to the classification of olive oil. The manifest theory of protestants in this and other cases involving commercial olive oil is that if such oil is imported for and actually used for manufacturing or mechanical purposes, it should be admitted to entry free of duty; but this view is not in harmony with the law. All olive oil worth over 60 cents a gallon, no matter for what use it may be suitable, must pay duty, and all olive oil that is fit for any use other than manufacturing or mechanical purposes must also pay duty, regardless of its foreign market values.

The testimony on behalf of the protestant, standing alone, might be deemed sufficient to justify the conclusion that the oil involved was fit only for manufacturing or mechanical purposes; but as against the evidence submitted by the Government food experts, charged under the food act with the responsibility of passing upon the purity of food-stuffs, it would seem to be insufficient to support the claim of protestant. Instead of protestant having submitted a preponderance of competent

testimony in support of his claim, we are satisfied that there is a clear preponderance of weight of evidence to sustain the collector's classification.

The protest must, therefore, be overruled, and the decision of the collector accordingly affirmed.

*Brown & Gerry (James L. Gerry of counsel), for the importer.*

*D. Frank Lloyd, Deputy Assistant Attorney-General, for the United States.*

PLATT, *District Judge*: The merchandise in question consists of olive oil. Duty was assessed thereon at 40 cents per gallon under paragraph 40, act of July 24, 1897. The importer duly protested against such assessment of duty, claiming free entry under paragraph 626 of said act, relating to olive oil fit only for mechanical or manufacturing purposes.

The Board of General Appraisers have found upon conflicting evidence that this olive oil was fit for other than mechanical or manufacturing purposes. "The Circuit Court should not disturb the findings of the Board upon doubtful questions of fact, and especially as to questions which turn upon the intelligence and credibility of witnesses who have been produced before the Board." In *re Van Blankensteyn et al.* (56 Fed. Rep., 474). And see also *Apgar v. United States* (78 Fed. Rep., 332), and *Vandiver v. United States* (156 Fed. Rep., 961; T.D. 28521). Indeed, I am inclined to think that had the case been before me in the first instance for decision upon the evidence, I should have reached the same conclusion as the Board. Some of the importer's witnesses admit that the article might be used as a food by a certain portion of our population, and a Government witness, Doctor Doolittle, states that it is a very fair sample of edible olive oil. I congratulate the Board upon the decision it arrived at in this case.

Decision affirmed.

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(T.D. 30278).

*China sheepskins.*

INTERNATIONAL HIDE & SKIN COMPANY *v.* UNITED STATES.

U.S. Circuit Court, Southern District of New York. November 4, 1909.  
Suit 5326.

CHINA SHEEPSKINS UNSELECTED — FURS. — China sheepskins imported unsorted and purchased indiscriminately, without regard to any particular use to which they might be adapted, and not shown to be used as furs, are not free of duty under paragraph 561 or 562, relating, respectively, to "furs" and to "fur skins."

On application for review of a decision by the Board of United States General Appraisers.

[Decision in favor of the Government.]

The decision below, which is reported as Abstract 19296 (T.D. 29119), affirmed the assessment of duty by the collector of customs at the port of New York. The Board's opinion reads as follows:

MCCLELLAND, *General Appraiser* : The merchandise in question consists of sheepskins. The growth thereon was returned by the appraiser as wool of Class 3, unwashed, upon which duty was assessed at the rate of 3 cents a pound, under paragraphs 358 and 360, tariff act of 1897, based upon the weight thereof as ascertained by the appraiser. The merchandise is claimed to be China sheepskins, used for manufacturing fur coats only, and entitled to free entry either under paragraph 561 or paragraph 562 of said act.

In abstract decision 17754 (T.D. 28634) the Board passed upon and determined a similar question in favor of the protestants' claim; but in that case, while it appears that the skins were of the China sheep as in the case at bar, they were shown to have been carefully selected for use in the making of fur coats, while the record here shows that the skins involved were unsorted and purchased indiscriminately without regard to any particular use to which they might be adapted. This is shown by the testimony of the secretary of the importing company.

"Q. Do you know what these skins are used for? A. Yes, sir.

"Q. What is their use? A. Principally coats.

"Q. Did you sell them to manufacturers of fur coats? A. Some of them might have been sold to a mitten manufacturer or a glove manufacturer. It is pretty difficult to state without referring to our books

"Q. Are the skins of a special character? A. Why, the short and the medium hair skins are sold for fur-coat purposes — and the long fur, the skins are sold to mitten manufacturers to make a mitten out of.

"Q. You purchased these skins indiscriminately in China, or did you purchase them as fur skins? A. Why, they are purchased indiscriminately."

It also appears from the testimony of this witness that one-third of the importation involved in protest 284738 was sold unsorted to a tanner to be made into leather. Since there was no separation of the skins claimed to be suitable for use only in the making of fur coats from the ordinary skins with the wool on, it is impossible for the Board to make a finding of the percentages of each, and therefore the protests must be overruled and the decision of the collector in each case affirmed.

*Hatch & Clute (Walter F. Welch of counsel), for the importers.*

*D. Frank Lloyd, Deputy Assistant Attorney-General, for the United States.*

MARTIN, *District Judge* : Decision affirmed.

NOTE. — No appeal was taken from this decision.

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(T.D. 30368.)

*Standard samples of wool.*

UNITED STATES v. AMERICAN EXPRESS COMPANY.

U S. Circuit Court, District of Massachusetts. February 16, 1910. No. 464 (suit 2031).

1. WOOL — STANDARD SAMPLES — TREASURY REGULATIONS — IRREVIEWABILITY. — The standard samples of wool prescribed by the Secretary of the Treasury on the authority of paragraph 352, tariff act of 1897, are conclusive in respect to classification and quality, except perhaps where the issue is one of fraud or mistake; and regulations in

respect to such samples are not subject to review by the courts or the Board of General Appraisers.

2. SAME — SAME — HARDSHIP OF THE LAW. — Where imported wools answer the quality of the standard samples prescribed on the authority of paragraph 352, tariff act of 1897, they should be classified accordingly, regardless of whether such standards operate unjustly, oppressively, or disproportionately to other classifications and values.
3. SAME — "IMMEDIATE OR REMOTE." — In paragraph 349, tariff act of 1897, relating to wools of the first class, the words "merino blood, immediate or remote," convey an unmistakable meaning and include wool in which the presence of merino blood is marked, though of inferior quality.
4. TREASURY REGULATIONS — RELIEF FROM HARDSHIP. — Relief from hardships of authorized government regulations should be sought from the executive department which, under expressly delegated authority, established such regulations.
5. TARIFF TAXATION — RIGHT OF REVIEW — CONSTITUTIONAL LIMITATIONS. — There is no vested right to import superior to the power of Congress to say upon what terms it shall be done, and it is quite within the constitutional discretion of Congress to declare upon what terms foreign trade may be had and to determine how the justice of claims for alleged excessive tariff taxation shall be ascertained and disposed of.
6. SAME — SETTLEMENT OF IMPORTERS' CLAIMS. — Claims based on excessive tariff taxation may in the discretion of Congress be left altogether to an executive department, or in suits against the collectors of customs, or to the determination of a Board of General Appraisers, subject to review by the courts upon such particulars only as the law may prescribe.

ON application for review of a decision by the Board of United States General Appraisers.

[Decision in favor of the Government.]

The decision below, reported as Abstract 19295 (T.D. 29119), reversed the assessment of duty by the collector of customs at the port of Boston, on importations by American Express Company and Boston Hide and Skin Association. The Board's opinion reads as follows:

MCCLELLAND, *General Appraiser*: These protests are against the assessment of duty at the rate of 10 cents a pound on the estimated weight of wool on Cape sheepskins, as class 1 wool. The returned weight of the wool is not disputed, but it is claimed that the wool so returned is of class 3 and dutiable at the rate of 3 cents per pound under the provisions of paragraphs 358 and 360, tariff act of 1897.

It is contended with almost stubborn insistence on the part of the Government, as shown by the testimony and an elaborate brief, that the classification of the said wool was correctly made by the collector for the sole reason, as alleged, that it conforms to standard sample 137 deposited in the principal custom houses in the United States under authority of the Secretary of the Treasury, pursuant to the provisions to paragraph 352 of said act.

In G.A. 6695 (T.D. 28632) we considered and determined adversely to the Government an issue in all respects comparable with that here involved, and we do not consider that anything, either by way of evidence or argument, has been presented by the Government to lead us to depart from the conclusion therein reached.

It would seem as though the Government's side of the issue has been presented upon an entirely erroneous theory, to wit, that since the Government examiner was satisfied that certain of the wool found on these skins was comparable with standard sample 137, it must therefore be returned and classified as of the first class, and that there remains no power, either in the Board of General Appraisers or the Courts, to change that classification, which is, in effect, contending that the per-



sons chosen by the Secretary of the Treasury to select the standard samples contemplated by paragraph 352, and the official examiners passing the wool, were to be the sole arbitrators during the life of the tariff act under which such standard samples were chosen as to what wools should be included within the classes specified in the act.

Counsel for the Government seems to lay much stress upon the words in paragraph 349 "or other wools of merino blood, *immediate or remote*," but we think when it is considered that the growth on the skins of these so-called Cape sheep is a mixture of wool, hair, and kemp, with the two latter largely predominating, and that such sheep are a degenerate species, with only a trace of the merino blood left in some of them, and that the value of the so-called wool, after being pulled from the pelt and washed, ranges from 3 to 10 cents a pound, it is not difficult to conclude that such a mixture was never intended by Congress to be classified as wool of the first class, subject to a rate of duty almost, if not altogether, twice greater than the average price per pound for which it will sell in the market, without considering the cost of labor and the cost of washing.

It is not to be overlooked that the wool which is taken from these skins, considering the great aggregate of skins imported, is of infinitesimal value. The skins are primarily imported to be made into leather, and it is only in the necessary course of the preparation of such skins for tanning that this so-called wool must be removed from the pelts.

It is clearly our view that when Congress arranged the wool schedule of the tariff, dividing wools into classes, and vesting in the Secretary of the Treasury authority to deposit in the principal custom houses of the United States standard samples as guides for the classification thereof by collectors of customs, Congress contemplated only straight wools and not such a combination of wool, hair, and kemp as is involved in these protests.

We see no reason to depart either from the reasoning expressed or the conclusion reached in *G.A. 6695* (*supra*), and we therefore sustain the protests and reverse the decisions of the collector.

*D. Frank Lloyd*, Deputy Assistant Attorney-General (*Charles D. Lawrence*, assistant counsel, of counsel), for the United States.

*Albert S. Hutchinson* (*Putnam B. Smith* of counsel), for the importers.

**ALDRICH, District Judge:** In this case the collector of customs at Boston assessed duty upon an importation of wool as in class 1 in accordance with sample No. 137, which was on file in the custom-house in Boston as a standard for the classification of Cape of Good Hope native skin wool. These standard samples were officially arranged and established under the direction of the Secretary of the Treasury as authorized by and in pursuance of paragraph 352 of the tariff act of 1897, and the duty imposed was that required upon the first class of wools and hair provided by section 357, reduced under paragraph 360 one cent per pound because the wools were on the skin at the time of the importation. The action of the collector of customs was reversed by the Board of General Appraisers, and the case comes here on appeal from that tribunal.

Contrary to the view held by the Board of General Appraisers, I am



inclined to view the authorized Treasury regulation in respect to samples of wool in the Boston port as a government or department regulation, promulgated under power conferred by Congress upon the executive branch of the government, and as conclusive in respect to classification and quality, except in cases, perhaps, where the issue is one of fraud or mistake; and whether relief upon that ground would be afforded by the courts rather than by the executive branch of the government need not be considered here, because the claim in this case is not fraud or mistake, but one based upon the idea of an unsound interpretation of the act of Congress authorizing the regulation. In other words, the claim is that Congress intended to authorize a classification and regulation in respect to samples of straight wool only, while the regulation in question, it is claimed, covers the wool of the degenerate merino, or the wool of sheep so remote in blood as to have only a trace of the merino.

It is quite unnecessary to give attention to the object of legislation of this kind, except to say that the growth of business in this department, as in many others, has required that Congress should authorize classifications, commissions, and other instrumentalities for simplification in the field of government transactions. If such a defence as the one made here is admissible under the usual protest, where would the line be drawn? If it holds good in one case upon the ground that the standard sample is from sheep too remote in blood and race, why is not the efficacy of the regulation altogether lost, and for the reason that if the issue of fact can be raised in one case, it can in all, and the question as to quality and classification would therefore at once be at large again.

Paragraph 349 of the act of Congress in question includes in class 1 merino, mestiza, metz, or other wools of merino blood, immediate or remote, imported into the United States from Cape of Good Hope and other countries. The evidence is very strong that the importation answered the quality of the sample, and indeed it is not contended otherwise, the contention of the importer being that the sample in question is inferior to samples in classes 2 and 3. The case of the importer upon this ground is very strong, and if the question of the quality, value, and proper classification were an open one here, it might not be difficult to find that the classification and duty based upon the samples operated with inequality in respect to value. But it would seem, as already said, as the issue was not one of fraud or mistake, that relief from the hardships of the authorized government regulation should be sought from the executive department, which under expressly delegated authority established the samples and prescribed the lines upon which the classifications should be made.

*Cramer v. Arthur* (102 U.S. 612) would seem to indicate that, when Congress regulates things to be done through the agency of the official instrumentalities of the Treasury Department, devised for the purpose

of nearer approximation to the actual state of things, which in practice operate with inequality, the one remedy for inaccuracies is to apply to the President through the Treasury Department to change the regulation. The doctrine of this case was recognized in *United States v. Klingenberg* (153 U.S. 93).

Aside from the view that the Chinese-exclusion cases, like *Fong Yue Ting v. United States* (149 U.S. 698) and *United States v. Ju Toy* (198 U.S. 253) and others, have a strong analogous bearing upon the question of the conclusiveness of an authorized executive regulation of the kind in question, is the very pertinent illustration of Mr. Justice Gray in the *Fong Yue Ting* case (149 U.S. 714, 715), based upon the authorities which he cites that :

Claims to recover back duties illegally exacted on imports may, if Congress so provides, be finally determined by the Secretary of the Treasury. *Cary v. Curtis* (3 How., 236) ; *Curtis v. Fiedler* (2 Black, 461, 478, 479) ; *Arnson v. Murphy* (109 U.S., 238, 240). But Congress may, as it did for long periods, permit them to be tried by suit against the collector of customs. Or it may, as by the existing statutes, provide for their determination by a Board of General Appraisers, and allow the decisions of that Board to be reviewed by the courts in such particulars only as may be prescribed by law. Act of June 10, 1890, Chap. 407, Sects. 14, 15, 25 (26 Stat., 137, 138, 141) ; *In re Fasset*, (142 U.S., 479, 486, 487) ; *Passavant v. United States* (148 U.S., 214.)

See, also, *Buttfield v. Stranahan* (192 U.S., 470, 496, 497 ; T.D. 25119), which would seem to be strikingly in point as covering the question here.

Thus, as there is no vested right to import superior to the power of Congress to say upon what terms it shall be done, it is quite within the constitutional discretion of Congress to declare upon what terms foreign trade may be had and to determine how the justice of claims for alleged excessive tariff taxation shall be ascertained and disposed of. Such claims may be left altogether to the executive department, or in suits against the collector, or to the determination of a Board of Appraisers subject to review by the courts, or subject to review by the court upon such particulars only as the law may prescribe ; and it would seem clear that Congress did not intend to have the regulation in question in respect to standard wool samples subject to review by the courts or by the Board of Appraisers, because Section 352 imperatively declares the standard samples of all wools which are now or may be hereafter deposited in the principal custom houses of the United States under the authority of the Secretary of the Treasury shall be the standards for classification.

Congress having delegated to the executive department of the government full authority to establish standards under the broad terms of the statute expressive of merino wool, immediate or remote, coupled with an express statutory declaration that such standards shall be the

standards for classification, the question whether a regulation standard operates unjustly, oppressively, or disproportionately with reference to other classifications and values, and whether relief should be granted, are questions addressing themselves to that branch of the government to which the authority was fully delegated, rather than to the courts.

The decision of the Board of Appraisers was that Congress, investing authority in the Secretary of the Treasury in respect to standards, contemplated only straight wools; but, if the regulations and acts of the executive department under this statute are subject to review by the courts, it will be seen that in this case the evidence is very strong that the wool, although of an inferior quality, was merino wool, and it is beyond question, and not disputed, that the wool was from sheep of merino blood, immediately or remote, and, therefore, the importation would seem to be within the express terms of paragraph 349 in respect to class 1. The words "merino blood, immediate or remote," convey an unmistakable meaning, and would seem, whether justly or unjustly, to clearly indicate this importation. The sample and importation answered the descriptive words of the statute with respect to merino wool. The evidence is strong as to the marked presence of merino blood, and the inferior quality of the wool was variously accounted for as resulting from the introduction of merino blood, or from the introduction of other blood into the merino, or through the merino blood pure and simple going back on itself under climatic, feed, and other influences.

The decision of the Board of General Appraisers is reversed.

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(T.D. 30369.)

*Reappraisement of mixed wools.*

GRUBNAU v. UNITED STATES.

U.S. Circuit Court of Appeals, Third Circuit. February —, 1910.  
No. 69 (suit 1975).

1. REAPPRAISEMENT — REVIEWABILITY — GENERAL APPRAISERS AS EXPERTS. — The provision in Section 13, customs administrative act of 1890, that reappraisement decisions by the Board of General Appraisers shall be "final and conclusive" makes clear the intent of Congress that after providing for appeals to Appraisers and General Appraisers, who are supposed to be experts as to the duties imposed upon them, there shall be an end of controversy when their decision is made, and that such decision shall not be open to judicial review, except to inquire whether the Appraisers have exceeded the authority conferred upon them by law or have otherwise acted illegally or fraudulently.
2. SAME — DECISION ACCORDING TO LAW — MIXED WOOLS. — In a reappraisement case relating to Smyrna wools that had been bought at a round price in a mixed condition, but before exportation to the United States had been sorted according to color, the Board of General Appraisers held that the value of the white wools was greater than the round price paid for the mixed material in the state in which it was bought. *Held* that, there being no charge that the Board had acted illegally in denying the importers

a hearing and the opportunity to produce testimony in the matter, and there being some evidence as to a market value for white wool in Smyrna, the reappraisement decision was "final and conclusive" as prescribed in Section 13, Customs Administrative Act of 1890.

APPEAL from the Circuit Court of the United States for the eastern district of Pennsylvania. [Decision in favor of the Government.]

In the decision below (171 Fed. Rep., 284; T.D. 29835) the Circuit Court affirmed a decision by the Board of United States General Appraisers, Abstract 15933 (T.D. 28300), which had affirmed the assessment of duty by the collector of customs at the port of Philadelphia on merchandise imported by Carl Grubnau.

*Curie, Smith & Maxwell* (*W. Wickham Smith* of counsel), for the importer.

*D. Frank Lloyd*, Deputy Assistant Attorney-General (*Jasper Yeates Brinton*, assistant United States attorney, of counsel; *J. Whitaker Thompson*, United States attorney on the brief), for the United States.

Before GRAY, BUFFINGTON, and LANNING, Circuit Judges.

GRAY, *Circuit Judge*: This is an appeal from the decision of the United States Circuit Court for the eastern district of Pennsylvania, affirming a decision of the Board of General Appraisers, which sustained the action of the collector in regard to an appraisement at the port of Philadelphia. The material facts with reference to the appraisement referred to are set forth in the stipulation of counsel, filed with the Board of General Appraisers, as follows:

It is hereby agreed that the merchandise covered by the above protest consists of washed Smyrna wool, embraced in two invoices; that these invoices cover certain bales of white wool, other bales of black wool, and other bales of gray wool, all invoiced at a round price; that on appraisement before the local appraiser at Philadelphia, the appraiser found a separate value for the white wool and made certain additions to make the foreign market value of such white wool, which made it worth over 12 cents per pound; and he appraised the black and gray wools as valued at under 12 cents per pound; that thereafter the importer called for reappraisement of said white wool by single United States General Appraiser pursuant to section 13 of the act of June 10, 1890, and said General Appraiser affirmed the appraisement as made by the local appraiser; that said importer called for further reappraisement of said white wool by a Board of Three General Appraisers, pursuant to said section 13 of the act of June 10, 1890, and said Board of Three General Appraisers affirmed the values already found for said white wool.

The protest of the importer challenges the legality of the action of the General Appraiser, charging that he had improperly found a separate value for white wool, apart from the colored wool, and that the merchandise having been invoiced at a round value the same should have been accepted by the collector, on the ground that, with respect to the merchandise in question, there is no separate market for the white and



for the colored wools. The testimony of the importer and of one other in the same business was to the effect that wool was bought in Smyrna at first hand from the producer, in lump lots, in which white, gray and black wool were mixed, and that, according to custom, the importer's agent had separated the white wool from the colored wools, baled and invoiced them separately, but at the round price actually paid for the unassorted lot. There was also testimony on the part of the government to show that white wool had a separate market value in Smyrna, although the usual mode of buying these wools in one lot, separating them, and exporting them in separate bales, was as stated by the importer. The round price of the wool as bought, including the white wool and the colored wool, was less than 12 cents a pound, and at that price would have been liable, under paragraph 358 of the tariff law, to a duty of 4 cents per pound. The appraisers, however, made a separate appraisement of the invoice of white wool at over 12 cents per pound, thereby subjecting it, under paragraph 359 of the tariff law, to a duty of 7 cents per pound.

The Board of General Appraisers affirmed these preceding appraisements, and from their action the importer took an appeal to the court below, who affirmed the action of said Board.

Section 19 of the customs administrative act, as amended by the act of July 24, 1897, provides as follows:

SECT. 19. [Ad valorem duties, how assessed—"value," "actual market value," defined.] That whenever imported merchandise is subject to an ad valorem rate of duty, or to a duty based upon or regulated in any manner by the value thereof, the duty shall be assessed upon the actual market value or wholesale price of such merchandise as bought and sold in usual wholesale quantities, at the time of exportation to the United States, in the principal markets of the country from whence imported, and in the condition in which such merchandise is there bought and sold for exportation to the United States, or consigned to the United States for sale. . . .

The appellant's contention is that the appraisers ignored and failed to act upon this plain standard of valuation, as prescribed by the customs law, and that therefore a question of law is raised touching the power of the appraisers and the legality of their action.

Section 13 of the same act provides that the appraisement of the different appraisers of the value of imported merchandise shall be final and conclusive, until a reappraisement is asked for, either by the importer or the government, in the manner prescribed by the statute, and that the last appraisement by the Board of General Appraisers, when their jurisdiction has been invoked, "shall be final and conclusive as to the dutiable value of such merchandise against all parties interested therein." This express provision of the statute would seem to make clear the intention of the legislative department of the government, that, after providing for appeals to successive appraisers and



boards of appraisers, who are supposed to be experts as to the duties imposed upon them, there shall be an end of controversy when their decision is finally made, and that such decision is not to be open to review in a judicial court, except to inquire whether said appraisers have exceeded the authority conferred upon them by law or have otherwise acted illegally or fraudulently.

The Supreme Court in *Hilton v. Merritt* (110 U.S. 97), prior to the enactment of the customs administrative act, after reviewing the various provisions of the Revised Statutes establishing the system of appraisement of merchandise, said :

These provisions of the statute law show with what care Congress has provided for the fair appraisement of imported merchandise subject to duty, and they show also the intention of Congress to make the appraisal final and conclusive. When the value of the merchandise is ascertained by the officer appointed by law and the statutory provisions for appeal have been exhausted, the statute declares that the appraisement thus determined shall be final and deemed to be the true value, and the duty shall be levied thereon accordingly. This language would seem to leave no room for doubt of construction. . . .

We are of opinion, therefore, that the valuation made by the customs officers was not open to question in an action at law, as long as the officers acted without fraud and within the power conferred on them by the statute.

The Board of Appraisers in the case before us acted within its jurisdiction as conferred by law, and there is no charge that it acted illegally in denying to the appellant a hearing and opportunity to introduce testimony bearing upon the question they had to decide. The record discloses the fact that there was some evidence as to a market value for white wool in Smyrna, the place from which the importation was made ; and in this respect the case differs from the case of *Gulbenkian & Co. v. United States*, decided in the second circuit (153 Fed. Rep., 858 ; T. D. 28079) where the Court expressly find that there was not a scintilla of evidence as to the market value of white wool at Bagdad separate and apart from its value in the lump when mixed with colored wools.

The judgment of the Court below is therefore affirmed.

COMPARATIVE STATEMENT OF IMPORTS AND EXPORTS OF  
WOOL AND MANUFACTURES OF WOOL FOR THE TWELVE  
MONTHS ENDING DECEMBER 31, 1908 AND 1909.

## GROSS IMPORTS.

ARTICLES AND COUNTRIES.	Quantities for Twelve Months ending December 31.		Values for Twelve Months ending December 31.	
	1908.	1909.	1908.	1909.
WOOL, HAIR OF THE CAMEL, GOAT, ALPACA, ETC., AND MANUFACTURES OF:				
UNMANUFACTURED—				
Class 1—Clothing (dutiable)—	<i>Pounds.</i>	<i>Pounds.</i>		
Imported from—				
United Kingdom . . . . .	28,814,466	55,383,495	\$5,721,256	\$12,548,426
France . . . . .	30,534	698,811	4,102	151,983
Argentina . . . . .	19,000,415	34,891,944	3,086,213	5,999,321
Other South America . . . . .	2,374,095	4,859,055	420,949	1,019,869
Australia and Tasmania . . . . .	14,597,566	35,177,946	3,932,472	8,697,451
Other countries . . . . .	2,777,255	12,790,088	466,526	2,751,431
Total . . . . .	67,594,331	143,801,339	\$13,631,518	\$31,168,481
Class 2—Combing (dutiable)—				
Imported from—				
United Kingdom . . . . .	12,034,139	27,500,781	\$2,532,205	\$6,613,157
Other Europe . . . . .	37,084	445,460	11,334	91,655
British North America . . . . .	739,409	2,021,573	134,641	493,370
South America . . . . .	1,299,399	2,133,049	248,688	454,958
Other countries . . . . .	29,216	8,458	7,628	2,017
Total . . . . .	14,139,247	32,109,321	\$2,934,496	\$7,655,157
Class 3—Carpet (dutiable)—				
Imported from—				
United Kingdom . . . . .	22,697,005	34,125,904	\$2,526,695	\$4,506,540
France . . . . .	491,366	3,898,404	67,864	570,059
Germany . . . . .	936,345	3,518,469	114,307	421,061
Russia in Europe . . . . .	5,344,259	13,210,578	655,167	1,865,565
Other Europe . . . . .	2,855,274	10,202,151	355,486	1,317,477
South America . . . . .	2,759,041	7,359,921	263,205	825,173
Chinese Empire . . . . .	17,663,908	38,287,670	1,754,279	3,918,168
Other Asia and Oceania . . . . .	5,355,318	10,376,948	697,089	1,497,680
Other countries . . . . .	2,723,290	15,240,466	304,359	1,785,005
Total . . . . .	60,825,806	136,220,511	\$6,738,451	\$16,706,728
Total unmanufactured . . . . .	142,559,384	312,131,171	\$23,304,465	\$55,530,366
MANUFACTURES OF—				
Carpets and Carpeting (duti- able)—	<i>Sq. Yards.</i>	<i>Sq. Yards.</i>		
Imported from—				
United Kingdom . . . . .	145,707	153,746	\$370,801	\$373,529
Other Europe . . . . .	419,624	723,225	1,823,668	3,211,518
Asia and Oceania . . . . .	142,677	281,318	528,807	953,885
Other countries . . . . .	1,567	2,893	10,287	12,209
Total . . . . .	709,565	1,161,182	\$2,733,563	\$4,551,141

## COMPARATIVE STATEMENT OF IMPORTS AND EXPORTS OF WOOL, ETC.

GROSS IMPORTS. — *Continued.*

ARTICLES AND COUNTRIES.	Quantities for Twelve Months ending December 31.		Values for Twelve Months ending December 31.	
	1908.	1909.	1908.	1909.
	<i>Pounds.</i>	<i>Pounds.</i>		
Clothing, ready-made, and other wearing apparel, except shawls and knit fabrics (dutiable) . . .	.....	.....	\$1,349,416	\$1,639,122
CLOTHS—(dutiable)—				
Imported from—				
United Kingdom . . . . .	1,848,491	3,066,314	\$2,233,575	\$3,379,501
Austria-Hungary . . . . .	215,533	301,649	201,290	286,081
Belgium . . . . .	440,611	625,270	432,575	607,203
France . . . . .	98,467	139,359	143,201	180,718
Germany . . . . .	1,186,898	1,644,303	1,135,398	1,512,550
Other countries . . . . .	12,362	23,381	15,848	25,633
Total . . . . .	3,802,362	5,800,276	\$4,162,187	\$5,991,686
DRESS GOODS, WOMEN'S AND CHILDREN'S—(dutiable)—	<i>Sq. Yards.</i>	<i>Sq. Yards.</i>		
Imported from—				
United Kingdom . . . . .	16,657,978	22,348,003	\$2,734,256	\$3,580,194
France . . . . .	9,679,702	11,537,708	2,177,844	2,604,481
Germany . . . . .	6,339,732	10,253,011	1,571,733	2,407,235
Other countries . . . . .	159,646	175,521	46,873	45,376
Total . . . . .	32,837,058	44,314,243	\$6,530,706	\$8,637,286
Knit fabrics (dutiable) . . . . .	.....	.....	\$69,954	\$16,738
All other (dutiable) . . . . .	.....	.....	706,417	1,222,739
Total manufactures of . . . . .	.....	.....	\$15,552,243	\$22,058,712

COMPARATIVE STATEMENT OF IMPORTS AND EXPORTS OF  
WOOL, ETC.—*Concluded.*

## EXPORTS OF WOOL AND MANUFACTURES OF.

FOREIGN.				
ARTICLES.	1908.	1909.	1908.	1909.
	Quantities.	Quantities.	Values.	Values.
WOOL, HAIR OF THE CAMEL, GOAT, ALPACA, ETC., AND MANUFACTURES OF:				
UNMANUFACTURED—				
Class 1—Clothing (dutiable) lbs .	890,597	740,344	\$179,721	\$121,424
Class 2—Combing “ “ .	93,423	36,240	25,957	7,955
Class 3—Carpet “ “ .	6,001,046	306,098	956,750	40,302
Total unmanufactured . . . .	6,985,066	1,082,682	\$1,162,428	\$169,681
MANUFACTURES OF—				
Carpets and carpeting, sq. yds., dutiable . . . . .	11,598	12,402	\$84,309	\$56,340
Clothing, ready made, and other wearing apparel, dutiable . . . . .	108,140	37,825	18,356	13,997
Cloths, pounds, dutiable . . . . .	405,435	244,411	101,566	30,887
Dress goods, women's and chil- dren's, sq. yds., dutiable . . . . .			77,315	46,381
All other, dutiable . . . . .			14,733	42,271
Total manufactures of . . . . .			\$296,279	\$189,876
DOMESTIC.				
WOOL, AND MANUFACTURES OF—				
Wool, raw, lbs. . . . .	168,691	46,400	\$34,554	\$10,030
MANUFACTURES OF—				
Carpets, yards . . . . .	50,003	74,066	\$50,105	\$73,629
Dress goods, yards . . . . .	16,373	26,105	13,110	14,581
Flannels and blankets . . . . .			36,540	70,898
Wearing apparel . . . . .			1,553,211	1,383,296
All other . . . . .			289,808	580,761
Total . . . . .			\$1,942,774	\$2,123,165

QUARTERLY REPORT OF THE BOSTON WOOL MARKET  
FOR OCTOBER, NOVEMBER, AND DECEMBER, 1909.

DOMESTIC WOOLS. (GEORGE W. BENEDICT.)

	1909.			1908.
	October.	November.	December.	December.
OHIO, PENNSYLVANIA, AND WEST VIRGINIA.				
(WASHED.)				
XX and above . . . . .	36 @ 37	36 @ 37	36 @ 37	34
X . . . . .	34 @ 35	34 @ 35	34 @ 35	31 @ 32
Blood . . . . .	41 @ 42	40 @ 41	40 @ 41	37 @ 38
" . . . . .	40 @ 41	40 @ 41	40 @ 41	35
" . . . . .	38 @ 39	38 @ 39	38 @ 39	34
Fine Delaine . . . . .	40 @ 41	39 @ 40	38 @ 39	37
(UNWASHED.)				
Fine . . . . .	27 @ 28	27 @ 28	27 @ 28	23
Blood . . . . .	36 @ 37	36 @ 37	36 @ 37	29
" . . . . .	36 @ 37	36 @ 37	36 @ 37	28
" . . . . .	34 @ 35	34 @ 35	34 @ 35	27
Fine Delaine . . . . .	33 @ 33½	32 @ 33	31 @ 32	30
MICHIGAN, WISCONSIN, NEW YORK, ETC.				
(WASHED.)				
Fine . . . . .	40 @ 41	40	40	35 @ 36
Blood . . . . .	39 @ 40	39	39	34
" . . . . .	37 @ 38	37 @ 38	37 @ 38	33
Fine Delaine . . . . .	38 @ 39	38 @ 38½	37 @ 38	36
(UNWASHED.)				
Fine . . . . .	26 @ 27	26 @ 27	26 @ 27	22
Blood . . . . .	35 @ 36	35 @ 36	35 @ 36	28
" . . . . .	34 @ 35	34 @ 35	34 @ 35	27
" . . . . .	32	31	30	26
Fine Delaine . . . . .				28
KENTUCKY AND INDIANA.				
(UNWASHED.)				
Blood . . . . .	36 @ 37	36 @ 37	36 @ 37	28
" . . . . .	34 @ 35	34 @ 35	34 @ 35	27
Braid . . . . .	29 @ 30	29 @ 30	29 @ 30	23
MISSOURI, IOWA, AND ILLINOIS.				
(UNWASHED.)				
Blood . . . . .	33 @ 34	33 @ 34	33 @ 34	26
" . . . . .	32 @ 33	32 @ 33	32 @ 33	25
Braid . . . . .	28 @ 29	28 @ 29	28 @ 29	23
TEXAS.				
(SCOURD BASIS.)				
Spring, fine, 12 months . . . . .	74 @ 75	74 @ 75	74 @ 75	60
" " 6 to 8 months . . . . .	67 @ 68	67 @ 68	67 @ 68	52
" " medium, 12 months . . . . .	66 @ 67	66 @ 67	66 @ 67	53
" " 6 to 8 months . . . . .	60 @ 62	60 @ 62	60 @ 62	45
Fall, fine . . . . .	61 @ 62	61 @ 62	61 @ 62	47
" " medium . . . . .	53 @ 55	53 @ 55	53 @ 55	42
CALIFORNIA.				
(SCOURD BASIS.)				
Spring, Northern, free, 12 months . . . . .	68 @ 70	68 @ 69	67 @ 69	55
" " " 6 to 8 months, . . . . .	63 @ 65	63 @ 64	62 @ 64	50
Fall, free . . . . .	57	56 @ 57	55 @ 57	42
" defective . . . . .	40 @ 45	40 @ 45	40 @ 45	33
TERRITORY WOOL: Montana, Wyoming, Utah, Idaho, Oregon, etc.				
(SCOURD BASIS.)				
Staple, fine and fine medium . . . . .	75 @ 78	75 @ 77	74 @ 76	62
" " medium . . . . .	70 @ 72	70 @ 71	68 @ 70	55
Clothing, fine . . . . .	70 @ 71	70 @ 71	68 @ 70	57
" " " medium . . . . .	67 @ 68	67 @ 68	66 @ 67	52
" " " medium . . . . .	65 @ 66	65 @ 66	64 @ 66	50
NEW MEXICO. (Spring.)				
(SCOURD BASIS.)				
No. 1 . . . . .	67 @ 69	67 @ 69	66 @ 68	55
No. 2 . . . . .	57 @ 60	57 @ 60	57 @ 58	45
No. 3 . . . . .	47 @ 50	47 @ 50	47 @ 50	35
No. 4 . . . . .	43 @ 45	43 @ 45	43 @ 45	32
NEW MEXICO. (Fall.)				
(SCOURD BASIS.)				
No. 1 . . . . .	57 @ 58	57 @ 58	56 @ 57	45
No. 2 . . . . .	49 @ 52	49 @ 52	49 @ 52	37
No. 3 . . . . .	45 @ 46	45 @ 46	45 @ 46	30
No. 4 . . . . .	40 @ 42	40 @ 42	40 @ 42	27
GEORGIA AND SOUTHERN.				
Unwashed . . . . .	32 @ 33	32 @ 33	32 @ 33	27



## DOMESTIC WOOL.

BOSTON, December 31, 1909.

The market during the last three months of the year has not been marked by any special features. The heavy buying by worsted manufacturers during the previous quarter has naturally been followed by a comparatively quiet period, although there has been a steady and healthy demand sufficient to keep the market generally strong.

Medium grades of wool have been particularly sought after, both in fleeces and territory stock, finer grades being less active. Fine delaines have at last found their level in comparison with foreign wools of similar qualities and we are obliged to quote somewhat lower values on this grade with the demand restricted to a comparatively few manufacturers. Good staple territory wools have been well cleaned up in the market as the larger worsted mills have for some time past been anticipating their heavy weight requirements for this class of stock.

It is worthy of note that fashion seems to have called for more woolen goods than for several seasons and many of the mills which have remained practically dormant for a long time are now beginning to revive.

This increased activity has been reflected in a good inquiry for noils and scoured wools, especially of the medium grades with East Indias and similar stock being prominent.

Statistics show the stock of *domestic* wool in Boston at the close of the year 1909 to be about 19,000,000 pounds against 23,000,000 pounds in 1908 and is, in fact, the smallest stock reported for the past twenty years.

GEO. W. BENEDICT.

PULLED WOOLS. (*Scoured basis.*) (W. A. BLANCHARD.)

	1909.			1908.
	October.	November.	December.	December.
Brushed, Extra . . . . .	72 @ 75	72 @ 75	72 @ 75	65 @ 68
Fine A . . . . .	67 @ 70	67 @ 70	67 @ 70	55 @ 60
A Super . . . . .	60 @ 65	60 @ 65	60 @ 65	50 @ 55
B Super . . . . .	53 @ 58	53 @ 58	53 @ 58	40 @ 50
C Super . . . . .	37 @ 40	37 @ 40	37 @ 40	25 @ 28
Fine Combing . . . . .	65 @ 70	65 @ 70	65 @ 70	55 @ 60
Combing . . . . .	53 @ 60	53 @ 60	53 @ 60	47 @ 53
California, Extra . . . . .	67 @ 70	67 @ 70	67 @ 70	55 @ 60

## REMARKS.

The increased activity of the woolen mills has been to some extent reflected in the demand for pulled wools. Extras, fine A's, and A supers have sold readily and at full prices. B supers have, in a measure, been displaced by East India wools, the fabrics called for being low and rough-faced in character. The combers have taken the B's for the three months, but have passed by the combing grades — particularly the fine and medium sorts. C supers

and grays have sold fairly well but at low prices on account of the competition of coarse foreign stock. With the exception noted, pulled wools, it may be said, are well sold up to the first of the year, although the high prices for pelts have curtailed pullers' profits. The market has been firm and notably steady.

W. A. BLANCHARD.

FOREIGN WOOLS. (MAUGER & AVERY.)

	1909.			1908.
	Oct.	Nov.	Dec.	Dec.
<b>Australian Combing:</b>				
Choice . . . . .	43 @ 45	43 @ 45	42 @ 44	42 @ 44
Good . . . . .	40 @ 41	40 @ 41	40 @ 41	39 @ 41
Average . . . . .	39 @ 40	39 @ 40	39 @ 40	38 @ 39
<b>Australian Clothing:</b>				
Choice . . . . .	42 @ 43	42 @ 43	42 @ 43	41 @ 42
Good . . . . .	40 @ 41	40 @ 42	40 @ 41	39 @ 41
Average . . . . .	38 @ 40	38 @ 40	38 @ 40	37 @ 39
<b>Sydney and Queensland:</b>				
Good Clothing . . . . .	40 @ 41	40 @ 41	40 @ 41	39 @ 41
Good Combing . . . . .	42 @ 43	42 @ 43	42 @ 43	40 @ 42
<b>Australian Crossbred:</b>				
Choice . . . . .	42 @ 43	42 @ 43	42 @ 43	37 @ 39
Average . . . . .	36 @ 38	36 @ 38	36 @ 38	33 @ 35
<b>Australian Lambs:</b>				
Choice . . . . .	42 @ 46	42 @ 46	42 @ 46	42 @ 46
Good . . . . .	40 @ 43	40 @ 43	40 @ 43	40 @ 43
Good Defective . . . . .	35 @ 38	35 @ 38	35 @ 38	35 @ 38
<b>Cape of Good Hope:</b>				
Choice . . . . .	35 @ 37	35 @ 37	35 @ 37	34 @ 36
Average . . . . .	32 @ 33	32 @ 33	32 @ 33	31 @ 33
<b>Montevideo:</b>				
Choice . . . . .	34 @ 36	34 @ 36	35 @ 37	30 @ 32
Average . . . . .	31 @ 32	32 @ 33	33 @ 34	29 @ 30
Crossbred, Choice . . . . .	36 @ 38	36 @ 39	37 @ 39	28 @ 30
<b>English Wools:</b>				
Sussex Fleece . . . . .	43 @ 44	43 @ 44	43 @ 44	37 @ 38
Shropshire Hogs . . . . .	42 @ 43	42 @ 44	42 @ 44	36 @ 37
Yorkshire Hogs . . . . .	35 @ 36	36 @ 37	37 @ 38	33 @ 34
Irish Selected Fleece . . . . .	36 @ 37	36 @ 37	36 @ 37	33 @ 35
<b>Carpet Wools:</b>				
Scotch Highland, White . . . . .	22 @ 23	22 @ 24	22 @ 24	18 @ 20
East India, 1st White Joria . . . . .	29 @ 30	29 @ 30	32 @ 33	26 @ 28
East India, White Kaudahar . . . . .	26 @ 27	26 @ 27	26 @ 28	24 @ 26
Donskoi, Washed, White . . . . .	32 @ 34	32 @ 34	32 @ 34	28 @ 30
Aleppo, White . . . . .	32 @ 34	32 @ 34	32 @ 34	18 @ 20
China Ball, White . . . . .	22 @ 23	22 @ 23	22 @ 23	17 @ 19
" " No. 1, Open . . . . .	20 @ 21	20 @ 21	20 @ 21	17 @ 19
" " No. 2, Open . . . . .	12 @ 14	12 @ 14	13 @ 14	12 @ 14

FOREIGN WOOLS.

The closing months of the year developed a gradual decline in the demand for Australian from manufactnrers, many of whom have placed orders in Australia or South America, and who have only bought in the market to make up their assortment until their direct purchases arrive.

This inquiry has been mainly for crossbred wools, fine Australian still being in limited demand, though supplies are ample. The American orders at Melbourne and New Zealand are reported to be large, and it is judged mainly for manufacturers, and principally of crossbred wools.

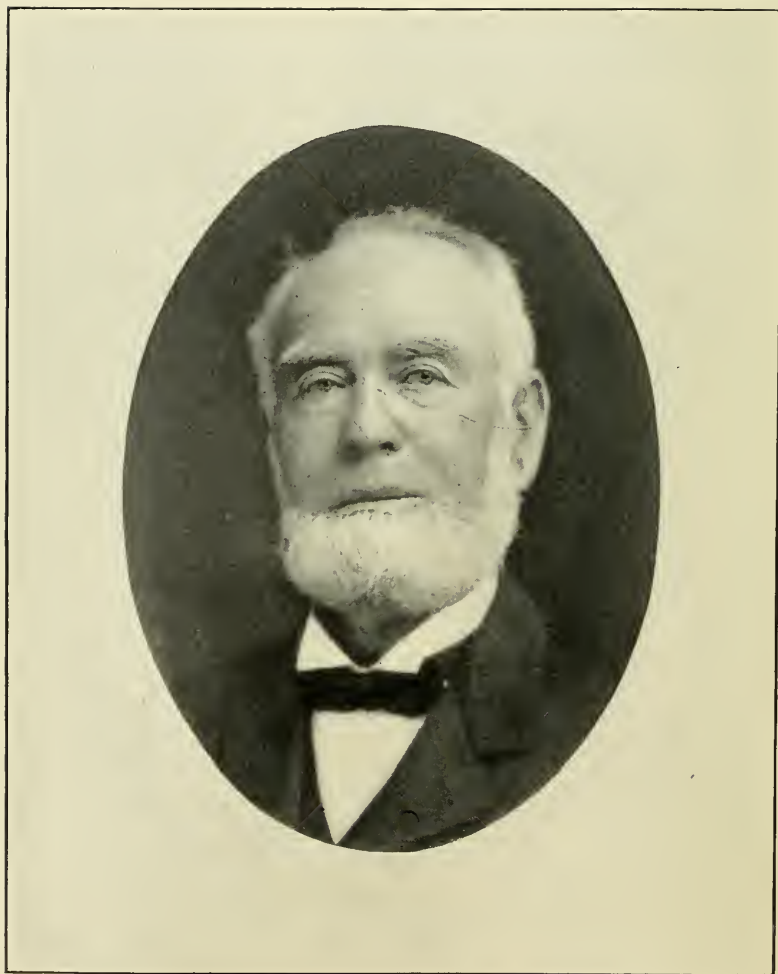
English wools have been imported for certain manufacturers, only a small portion being offered for sale in the market here.

The unfavorable reports as to the condition of the South American clip have caused a falling off in the orders from the United States. Stocks of old wools here have been practically cleared up. An increased inquiry for low grade woolen goods has created an unusual demand for China, East India and other carding wools, both white and colors.

Some uneasiness prevails owing to the high price of all classes of wool, and there appears to be a quite general disposition on the part of consumers to reduce their supplies in the expectation of lower values later on.

FEBRUARY 16, 1910.





THOMAS GOODALL.



# BULLETIN

OF THE

## National Association of Wool Manufacturers

A QUARTERLY MAGAZINE

DEVOTED TO THE INTERESTS OF THE NATIONAL WOOL INDUSTRY.

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BOSTON, JUNE, 1910.

[No. II.

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### THE NEW TARIFF AS AN ISSUE.

ASSAILED NOW ONLY BECAUSE IT IS MISREPRESENTED  
AND MISUNDERSTOOD.

No experienced and informed protectionist will fall into any fright at present tokens of popular hostility to the new Aldrich-Payne tariff. It is the unvarying rule that a new tariff law is always a trouble-maker at first for the political party responsible for its enactment. The tariff of 1883 was followed in 1884 by the election of Mr. Cleveland to the Presidency — a result one cause of which was the resentment of some disappointed “downward revisionists.” Again, the McKinley tariff of 1890 cost the Republicans in that year the control of the National House, and in 1892 the Presidency. Even the Dingley law of 1897 might have wrought some mischief to the Republican party in the State and Congressional elections of 1898 if it had not been for the intervening war with Spain.

It is an easy matter for disgruntled hostile interests to assail a new tariff and to predict all manner of calamity of it, but such calamity certainly did not attend the early operation of the Aldrich-Payne law last year. On the contrary, there was an immediate and strong revival of general business, which has now been checked only by the persistent anti-tariff agitation of many newspapers. That the new law

is a good revenue producer is being proved by the lessening of the deficit, and that rates as a whole are not excessively high is being demonstrated by the increased imports and by the fact that more than one-half of our entire imports are now absolutely free of duty.

The bitterest assaults upon the new tariff can be traced back in nearly every case to the foreign manufacturing and importing interests, still a potent force in the United States, and traditionally opposed to the protective policy because it builds up American instead of foreign industry. The attitude of American protectionists, especially of American manufacturers, is often described by the opposition as a selfish one. But it is forgotten that on the other side there are aligned the selfish interests of European manufacturers and merchants, who have always been the real, great source of inspiration of the anti-tariff propaganda in America. There is this vital difference between the two contending forces, that the success of the American producing interests means the doing of more work and the earning and distributing of more wages in the United States, while the success of the other side means less work here and more work abroad. If the tariff issue is simply a clash of two conflicting selfish interests, it is easy to determine on which side all real Americans should enlist.

But there is another element this time in the opposition to the new protective tariff. This is the Republican "insurgent" faction in the National Senate, and a part, at least, of the Republican "insurgent" faction in the House of Representatives. These "insurgents" earnestly profess to be protectionists, but their course in Congress unfortunately suggests that many of them are sectional and not national protectionists. Senator LaFollette's legislative program of making sharp reductions in the woolen duties at the expense of the manufacturers, while leaving the duties on the raw wool just as high on the basis of an ad valorem equivalent as they are now, is a good case in point. Another is the increase of the barley duty, for which Senator LaFollette and several of his "insurgent" colleagues voted. These men

are the highest kind of high protectionists — for the local industries of their State or district. They are tariff “revisionists” only when the industry which it is proposed to sacrifice is located in the distant, helpless, and obnoxious East.

There can, of course, be no open and acknowledged alliance between the selfish interests of Europe and other foreign countries and the “insurgent” faction in the American Congress, although the parliamentary leader of the “insurgents” in the Senate was accused of making up his anti-tariff speeches out of the “importers’ briefs.” Nor can a working agreement be very well arranged on the tariff question between the “insurgents” of either house and the Democratic membership, for the Democratic leaders and the “insurgents” could never agree as to the articles on which the protective duties were to be reduced. Because the Southern States grow relatively little wool, it was practicable for Mr. Mills, fifteen years ago, to commit his party to the abolition of all protection on this important product of the farm. But Senator LaFollette of Wisconsin and Senator Dolliver of Iowa and their sympathizers in the House would never dare to affront in this way the robust conviction of the Western agriculturists that free wool means ruin to an important Western industry. On the other hand, the more progressive Southern States have a large and increasing stake in cotton manufacturing, against which Mr. LaFollette and Mr. Dolliver launched a bitter attack as a New England and, therefore, a hateful industry.

There may be much thundering and gesticulation, as there always is against every new tariff, but the Aldrich-Payne act cannot be displaced or seriously amended in the next Congress. And the longer the new act is in force, the better the American people will come to understand and approve it. If the foreign and domestic enemies of this legislation do not succeed in breaking it down in the first two or three years, they are never likely to develop strength enough to do so. The protectionist idea per se is very much stronger now in this country than it was before the solid South began

to take practical lessons in political economy in the form of manufacturing. The whole present denunciation of the new tariff is significantly not that the protective principle is the wrong one, but that these particular rates of duty are unnecessarily high, "prohibitive" of commerce and "prohibitive" of revenue. Of course, the Federal records of our external trade already contradict this assumption and in a year or two are going to put a lasting quietus on this delusion. The real, substantial business interests of the country want to give the new tariff sufficient time, and they will have their way and have the satisfaction of seeing the new law triumphantly vindicate the wisdom and patriotism of its authors.

All that the protectionists of the country need to do now is to stand by their guns and let the summer squall blow over. Many and many a time have such storms arisen in the past fifty years. The loss of a few Congressional districts, even the loss of the National House, cannot impeach the wisdom and soundness of the protective principle. An overwhelming majority of the business men of America believe in this principle as unequivocally as they believe in the gold standard of value or a republican form of government. They know that the protective policy is the right policy, and they cannot be shaken from their conviction, though here and there the uninstructed masses in a fit of pique or prejudice may vote against it.

Nor can these masses be seriously blamed. All that they know about the tariff is what is told them by their newspapers, and these newspapers in their news and editorial columns have been insisting for nearly a year that the new tariff was "higher" than the old one, that all of the duties except in the steel and one or two other schedules were increased, and that all of the "burdensome" cost of food and clothing was the direct result of the work of the lawmakers in Washington. All through the process of tariff-making last spring the statement was iterated and reiterated in the press that the duties on wool and woollen cloths were heavily advanced, and that the higher prices of clothing were an inevitable consequence. This falsehood was repeatedly

denied and exposed by the National Association of Wool Manufacturers, and yet some newspapers still assert and many uninformed persons doubtless still believe that the "woolen trust," which has never existed, has cajoled or coerced Congress into general elevation of Schedule K!

The same thing is true of other industries. There is a vast and astounding difference between the tariff as it is represented in the superfervid columns of hostile newspapers, and the tariff as it was actually enacted and is now in operation. The difficulty is that a large proportion of the American people never read a single paragraph of the real tariff in all their lives, but gain their entire education in political economy from a hasty skimming of the daily press. It was this inexact, superficial knowledge of the real tariff that led to the condemnation of the McKinley law in 1890 — and it was a more thorough and painfully acquired knowledge of the practical effects of the alternative free trade policy that blotted the Democratic party out of existence throughout the industrial North in the Congressional elections of 1894.

Fortunately, that lesson has not been entirely forgotten in this year of grace 1910. The protectionists cannot do more effective work in next autumn's Congressional campaign than to reproduce from newspapers that denounced the McKinley law the actual results of the abandonment of that protective legislation. Those newspapers in 1893-1894 were publishing columns of announcements of the shutting down of mills and factories or their reduced production — columns over which facetious protectionist contemporaries were wont to place the vivid headline "Gone Democratic!"

The political party responsible for all this destruction had gained power in 1892 on the plea that it wished to "correct the inequalities" and "reduce the excesses" of the McKinley law. This is now the plea of the enemies of the Aldrich-Payne legislation. An open, frontal assault upon the protective principle is no longer deemed wise and expedient in the United States, and a flank attack is all that anybody dares to offer. There are many indications that the chief onslaught this time is to be delivered against Schedule K,



protecting wool and woolens. The iron and steel duties were the principal target in the revision of 1909. These duties were generally and sharply reduced, and for a while the clamor is stilled, though some assailants, unsatisfied with reduction, now demand the entire abolition of all duties on metals and their manufactures. To such men as these and other extremists, Schedule K stands forth as a shining mark. Already, these same veracious chroniclers, who described the Aldrich-Payne law as "revision upward," are adding the wool compensatory and ad valorem duties together and denouncing American wool manufacturers for expecting "protection of more than 100 per cent." This is a part of the current education of the "average man," whose newspaper is his library.

It is fortunate for the protective system, for the prosperity of America, and above all for the wages of this same "average man" and his fellows, that it is still some months before a Congressional and more than two years before a Presidential election. Neither the new tariff as a whole, nor Schedule K, is perfect—that no man would contend. But time will give a sobering opportunity to measure the real importance of the imperfections, and to determine whether they are serious enough to justify a complete demolition and reconstruction of the law. The final judgment is quite certain to coincide with President Taft's declaration that the Aldrich-Payne act is on the whole "the best tariff bill that the Republican party has ever passed." That is already the opinion of American business men, and the right kind of a campaign of education can make it finally the opinion of the great majority of the American people.

WINTHROP L. MARVIN.

## THE COMING ANNUAL BANQUET.

It is with very great pleasure that the officers of the National Association of Wool Manufacturers announce that at the annual banquet of the Association, to be held at the Hotel Somerset, Boston, on the evening of September 14 next, the principal guests and speakers will be Hon. James S. Sherman, Vice-President of the United States, Senator Francis E. Warren of Wyoming, and Senator Henry Cabot Lodge of Massachusetts. Mr. Sherman is not only admired and beloved for his straightforward, manly character and very great ability as a public man, but he is known and honored everywhere as one of the clearest thinkers among the protectionist leaders of the United States. His tariff speeches year after year in important national campaigns have presented the case with singular fairness and exactness. He will address himself in his Boston speech to the protective principle, not to any mere details, and his address will be eagerly anticipated by the manufacturers and merchants who are to hear him.

Senator Warren is known in the East as one of the most powerful leaders in the Senate, and as one who speaks with the utmost authority on the great industry of wool growing, the prosperity of which is so essential to the prosperity of manufacturing. He is the chief representative in public life of the agricultural branch of our common industry, and for this, as well as for his dignified and winning personality, he is sure to have a cordial welcome.

Senator Lodge will scarcely need an introduction to the wool manufacturers of America. With the regretted retirement of Senator Aldrich, Mr. Lodge will be looked to more conspicuously than ever as the foremost champion in the Senate of the protective principle. He has a large familiarity with the textile industries, of such vital importance to the welfare of Massachusetts, and on this subject he is equipped to speak with information as well as eloquence.

A formal notice of the September banquet will be sent to all members of the Association and to others interested, and there will undoubtedly be a large gathering of representative business men in the banquet hall of the Somerset.

## THE COLWELL REPORT OF 1866.

A DOCUMENT OF VERY GREAT HISTORICAL VALUE TO THE  
WOOL AND WOOLEN INDUSTRY.

ONE of the names which Americans of the present day have good cause to remember as of a public man who did much to make our country the greatest manufacturing nation in the world is that of Stephen Colwell of Pennsylvania, a member of the Revenue Commission of 1865-1866. Mr. Colwell's memorable report on wool and the manufactures of wool has just been republished by Congress, through the kindness of Senator Warren of Wyoming, and it has seemed best to reproduce it entirely in this issue of the Bulletin. When this report was presented to Secretary Hugh McCulloch, it was regarded as the ablest and most comprehensive statement of the case for the protection of our industry that had appeared up to that time. Its fundamental propositions remain as true to-day as they were in 1866. The historic value of the report is great, and its main argument is unanswerable.

Mr. Colwell was a scholar, a lawyer, a practical man of affairs, one of the most eminent of his generation of Americans. Born in Brooks County, West Virginia, on March 25, 1800, he was graduated from Jefferson College, Pennsylvania, at the age of nineteen, and was admitted to the practice of law two years later—a clear token of his unusual intellectual gifts. From 1821 to 1836 Mr. Colwell pursued his profession in St. Clairsville, Ohio, and Pittsburg, Pa. He was a prototype of those capable lawyers of to-day who are business men as well as lawyers. He was a master not only of law but of trade and finance. He became a manufacturer of iron at Weymouth, N.J., and afterward at Conshohocken on the Schuylkill. Moreover, he bore an important part in the development of the great railroad system of the Middle States, and was a director of the Camden & Atlantic Railroad, the Reading Railroad, and the Pennsylvania Railroad.

In June, 1865, Mr. Colwell's ability as an economist was fitly recognized by appointment on the national commission authorized by act of Congress "to inquire and report upon the subject of raising by taxation such revenue as may be necessary in order to supply the wants of the Government, having regard to, and including the sources from which such revenue should be drawn, and the best and most effective mode of raising the same."

In the far-reaching work of this commission Mr. Colwell was a leading factor. He was the author of the special reports on wool and woolens, on the influence of duplication of taxes upon American industry, and on iron and steel, in the formal report of the commission, communicated to Congress in January, 1866, and published by order of the House of Representatives. This report was sent to Congress with the powerful endorsement of Secretary McCulloch. It formed a large part of the basis of the present system of revenue legislation in the United States.

Mr. Colwell died in Philadelphia, on January 15, 1871, leaving an enviable record of conscientious public service. Mr. Henry C. Carey, in his "Memoir of Stephen Colwell," referring to his connection with the iron industry says of him:

Through a quarter of a century of vicissitudes, inflicted upon that department of manufacture more mischievously than upon almost any other by an inconstant and often unfriendly government policy, opportunity was presented, as the necessity was imposed, for studying the interests of productive industry in the light of such active and greatly varied experiences as might instruct even the dullest, and could not fail to teach one already so well qualified for promptly understanding all that concerned that and every other branch of productive industry.

Cultivating political economy as a theory of beneficence, he wrote his most elaborate and voluminous work upon the credit system, embracing therein all the agencies and instruments employed in foreign trade and domestic commerce, and gave a vast amount of time and thought to the literature of these several subjects in all their branches; but through all and over all the crowning aim and purpose of his endeavors stands out conspicuously, crystallized as it is in a definition

of political economy, in which after reviewing the entire range of conflicting explications, he says: "When we meet a definition running thus — the science of *human welfare*, in its relations with the production and distribution of wealth, we shall begin to hope the doctrine of social, or political, or national economy is beginning to assume its proper proportions." The sentiment of that definition directed all his studies, all his writings, and, as a passion, governed all his life. In religion, the faith that works by love; in economic theory, the best interests of humanity; in morals, the justice, mercy, and charity which practically exemplify the brotherhood of men; were the governing impulses of all the works of both his head and his hands.

Dr. John L. Hayes, the first Secretary of the National Association of Wool Manufacturers, bore this witness out of his own personal knowledge to the powerful influence of Mr. Colwell in harmonizing the interests of the wool growers and the manufacturers in the framing of that early tariff:

At the outset the two Committees were widely apart in their views, and the traditional jealousies became at once apparent. Here the weight of character, disinterestedness, and moral power of Mr. Colwell came into play. He was personally present at many of these conferences, and I am convinced that the harmonious arrangement finally made was mainly due to his influence. This influence was perfectly unobtrusive, but both parties had absolute reliance upon Mr. Colwell's integrity and wisdom, and a mere hint from him was sufficient to give a right direction to our councils. Some of the suggestions which he made were of great practical value.

Again Dr. Hayes says:

The bill, of which the chief features are due to Mr. Colwell's suggestions, is wonderfully sustained; its practical working is really remarkable for its success, . . . but the influence upon our industry is by no means the chief object. The wool tariff is the key to the protective position in this country. It secures the agricultural interest and the West.

Mr. Carey, in summing up his estimate, declares that Mr.



Colwell was "the highest among the authorities in our history in whatever combines knowledge of facts and soundness of economic principles."

The wool and woolen report by Mr. Colwell contained in the report of the Revenue Commission of 1866 is as follows :

SPECIAL REPORT No. 13.

*Report of Mr. Stephen Colwell of the United States Revenue Commission on wool and manufactures of wool.*

PRELIMINARY.

OFFICE OF THE U.S. REVENUE COMMISSION,

May, 1866.

No considerations pertaining to the revenue of the country are more important than those which relate to the employment and activity of its productive labor. The inquiry whether this labor is well or ill supported can never be amiss, when public wealth or revenue is in question; nor is it any less pertinent to examine whether any and what obstructions or disturbances lie in the path of labor and national production. The industry of a nation is an interest so vital as to be equalled only by its internal liberties and its independence of foreign control. These being secure, the highest national results can only be reached through that widespread and fully diversified industry which is applied under the advantages of increasing intelligence and the aptitude of growing skill and experience. As the tendency of full employment is to exclude crime, the benefits of that high integrity, the best cement of society, which accrue from the prevalence of religion and morality, may be expected to reward a nation in which occupation is most varied and labor best remunerated.

As it can scarcely be doubted, much less disputed, that the largest production of a well directed industry is that which will best enable our country to endure the heavy taxation to which it is now necessarily subjected, it becomes needful to notice the differing opinions which prevail upon the national policy best adapted to stimulate and uphold the industry upon which all production depends. These opin-

ions, as one or the other class of them prevail, pass into legislation, and, according as they are well or ill founded, affect the ability of the people to provide the revenue indispensable to national credit and progress.

Such differences are of ancient date; centuries ago a large class of statesmen and writers upon national policy held that in a national point of view the special aim of public economy should be to secure a permanently favorable balance of trade with foreign countries. This opinion, which held large sway for nearly a century under the appellation of the mercantile theory, was fiercely attacked, with free use of argument and sarcasm, by a school of economists propounding a theory which they industriously and vigorously support to the present time. The industrial policy involved in their theory is that all that concerns the encouragement and support of national industry and the proper reward of labor should be left to the natural movement of foreign trade and its influences upon public welfare. This should properly be called the commercial theory. It is called free trade.

It will be seen that one characteristic is common to both these theories. They both regard the whole subject of labor, laborers, and national production from the side of trade. They both place that industry which produces the commodities necessary to civilization and comfort under the guardianship of foreign trade. The men who make the commodities which trade supplies for consumption are placed in the order of importance, after the merchants who are the chief agents of distribution.

The truth is, national production, national wealth and power, are not questions of trade, foreign or domestic; trade is one of the special incidents of national economical progress. No conclusions drawn from reasoning which begins by considering what concerns the distribution of commodities in advance of what concerns the interest of those who produce these commodities can be sound. Doctrines founded on this error may have a long life under the sustaining patronage and wealth of the *merchants* of the world; but this commercial theory is inevitably destined to share the fate of the

mercantile theory. Both fail to take human welfare and the interests of human labor as their main elements. This fatal mistake has buried one, and will, ere long, bury the other, in the rubbish of sad experience and mistaken doctrines.

It should not be difficult to comprehend why the interests of the laboring masses of a country should be the highest objects of national policy. In these masses lie the wealth and power of the country. The products of their industry furnish the food and raiment and dwellings of the whole population — whatever is used at home and whatever is exported to pay for every commodity imported. These masses constitute two-thirds of the whole population, and upon every principle of sound national policy deserve the utmost care which national intelligence and power can give them. They hold claims upon national justice and power which should never be forgotten nor repudiated. Their interests cannot be left to the alternation of a business so fluctuating as foreign trade, nor should merchants shape or control public policy in what concerns creative industry and the well being of the working classes. A paternal care for all departments of labor belongs to the Government, and its exercise demands vigilance as well as impartiality. Foreign trade would be impossible without a whole code of laws relating to ships and shipping, seamen and freights, and without the maintenance of navies to protect vessels in all parts of the world, and to drive piracy from the high seas and every lurking place in bay or river.

What public policy owes to foreign trade and to the class of men who have become the distributors of the products of industry, and what is thus accorded at such a large public expenditure, is not less due so far as it may be required by the classes who apply their capital and labor to the production of the commodities which enter the channels of trade. The truth is, that however important in point of national policy that the laws of trade and shipping should be well devised and fully enforced, still higher considerations than mere public policy claim the attention of government where the laboring classes are deeply concerned, not only because

the revenue and strength of the country depend upon productive labor, but because the highest condition of national welfare depends upon the highest condition of the masses of the people in point of morals, religion, intelligence, social ease, and comfort. Every department of industry, and those by whose science, skill, capital, and labor it is conducted, have special claims upon government for whatever legislation is needful for their security and encouragement in harmony with other branches of industry. No other duty of government can be of higher concern than this.

Those who would confine public policy to national defence and the administration of justice would, in the name of justice, deny what is in the strictest sense due as justice to all classes of the industrial community. Whatever theories of government may be entertained elsewhere, ours was not instituted for the mere purpose of adjusting differences, maintaining a police, and punishing crimes. The people with whom our Constitution originated had higher aims, and intended the "general welfare" to be regarded as a principal object.

Every nation has a platform for its own industry, because it must depend upon that industry for nine-tenths, if not ninety-nine hundredths, of its consumption; for every country has characteristics peculiar enough to demand specific treatment. It is no more possible to mingle these peculiarities, and no more proper, than it would be to abandon specific national legislation and attempt to cover the whole ground of national welfare by the law of nations. The special character of our industry, which it concerns us now to notice, is the higher rate of compensation awarded to labor. This has arisen from the popular nature of our political institutions, and the cheapness and abundance of land. Men who labor will not, and need not, accept the wages which rule in Asia and Europe, so long as they can become proprietors themselves. As all the prices of the country have become adjusted to the high rate of compensation which prevails here between employers and employed, a higher range of general prices must prevail than in any great civilized country. Our

markets become, consequently, a great temptation to the traders of all the world, and a special mark for their industry and enterprise.

While our markets seem high to others, theirs appear cheap to us, and seem to those who fail to give the subject due consideration to offer the inducement of supplying abundantly whatever is cheaper in foreign countries than in our own. But abundant national or individual supplies are not to be realized by the fact of cheapness. The ability to purchase depends not on the cheapness of the commodity, but on the means of payment. It is well known that the countries where commodities are cheapest are not those where the inhabitants are most amply supplied; and it is equally notorious that the people of this country, where commodities are at higher prices than prevail elsewhere, are more fully supplied and in more full enjoyment of the comforts and luxuries of civilized life than any population in the world.

Our ability to purchase foreign commodities depends wholly not on the price, but upon what will be received in payment. It is near enough for our present purpose to say that the amount or value of our annual exports exhibits the extent of our annual ability to pay for imports; merchants promptly export to foreign countries every article for which they can hope to find a proper market. Our exports of the products of our own country, including the precious metals, may range between three and four hundred millions of dollars in value. This will constitute the limit of our ability to pay for goods imported, if payment in our national bonds be not taken into the account.

The consumption of our whole population is now not under three thousand millions of dollars in value. One-half of the commodities which are thus used or consumed are from 50 to 100 per cent higher here than they are in Europe or Asia. But this cheapness does not induce us, and cannot enable us, to import even a thousand millions in value of these cheaper commodities. Such an importation is a commercial impossibility; and necessity compels us to submit to



that range of higher prices which the rate of wages and other special circumstances at home force upon us.

The result is, that we cannot purchase abroad any more than we can pay for. We must be the producers at home of at least nine-tenths of the commodities we consume or use, but it should be noted that the payment at home, in the productions of domestic industry, of two thousand five hundred millions, is far less difficult than the payment of five hundred millions in foreign countries for what is imported. It cannot be denied that much the largest proportion of the commodities we import are produced of better quality, and in any needed quantity, at home; the main recommendation of the foreign articles being their cheapness. One-tenth of what is required may be imported at say half the domestic price. A struggle has ensued in this country to determine what class shall have the benefit of these cheaper foreign commodities. This struggle has, by its operation on the domestic industry and trade of the country, produced a succession of fluctuations in prices during the last half century damaging the productive power of the country to an extent far exceeding the value of all the goods imported in that time.

On grounds of national policy and individual justice, it should not be difficult to decide what course is to be pursued in such cases. No class of individuals can have any special title to the exclusive enjoyment of these cheap goods; the advantage is necessarily confined to a few: chief among these is the foreign manufacturer, who obtains a decided advantage by admission to our markets. The government, therefore, intervenes, by means of import duties, and other needful regulations, to place the foreign manufacturer in strict competition, allowing him no advantage, not even that of selling below the cost production, for the purpose of destroying the competition which keeps him out of so desirable a market. The full difference between the cost of producing the commodities we consume abroad and at home should go into the public treasury, becoming thus a public

benefit, and affording some compensation for the disturbance of domestic production.

By this means, too, the fluctuations and revulsions of foreign trade and over-production should be controlled, if not wholly shut out, from deranging the more equable flow of domestic production and trade. The combination of capital, labor, skill, and science, which go to make up the productive power of the country, is not only a very costly but an exceedingly complicated organization, very liable to serious derangement from mismanagement or careless handling. The capital embarked in it expects compensation, the labor must have it, the interests of consumers demand adequate attention. The relations of the whole to public welfare and public authority present a problem which the most experienced statesmen may fear to touch without special care and preparation. Thus it presents itself in its domestic aspects; but when the domestic organization of labor is brought into due contact with a foreign one radically different, no skill nor power can make them harmonize. Such differences may be compensated; they cannot work in harmony, nor without injurious friction.

In the light of such considerations, since our national expenditure has become five-fold greater than in 1860, it becomes needful to observe the double effect of foreign competition and of heavy taxation upon our most important branches of industry. It is well known that heretofore the struggle between foreign and domestic labor has been severe enough to demand the constant aid of favoring legislation; and this is now more necessary than ever, not merely as a revenue measure, but to insure that activity and progress in our domestic industry which alone can enable the people to pay annually internal taxes to an amount exceeding two hundred millions of dollars.

Common precaution dictates that in a matter so vital to national credit and prosperity nothing should be left to mere experiment or to chance results. Whatever can be, should be made safe. The main departments of domestic industry and consumption should be scrutinized with this view.

The production of food incurs little direct risk from foreign competition, though it may be injuriously affected by heavy taxation or unskilful adjustment of its burdens. The main dependence of agriculture for a market is upon those employed in manufactures, and of course upon that success which makes them large consumers, and saves them from being driven to the necessity of producing their own food.

All the chief branches of domestic production are so inter-linked that any imposition of duties which injures or destroys one weakens or finally destroys others. The whole class of farmers on the one hand, and the whole class of those engaged in other pursuits on the other, are mutually customers of each other; and each of these principal classes are susceptible of many subdivisions, which are in like manner mutual customers. Their mutual interchange of commodities and services exceed in money value much more than five times the entire foreign trade of the country. They reach this vast amount because it is a virtual exchange of labor—an exchange in which the parties can purchase what they want with what they have. They literally work for each other, and exchange the products. They are only restricted in this process by the capacity of production and the needs of consumption.

When a hundred millions of dollars are invested in these transactions, adding so much to the quantity and value of the commodities forwarded to the channels of domestic trade, and so much to the rewards of labor, this advantage will continue to operate, passing indefinitely round the circles of industry and trade, until all in their turn, remotely or directly, share in the benefit. It is by such additions that production is not merely kept up, but grows, each increase begetting or promoting another, while individual and national wealth grows by feeding on its own gains.

Just the reverse of this process takes place when a hundred millions in value of the means employed in this industry or of the avails of this production are taken away from this use. The contraction to fill the void made by such a removal is felt in its continually narrowing process until lost in its

complication with other obstructions and troubles. But the effects of the abstraction of the avails of industry will continue to operate long after it is possible to trace distinctly its path. If we suppose that those engaged in productive industry were merely to increase their expense of living one-tenth, the abstraction would absorb so vast an amount of the capital employed as to give a severe check to the whole movements of industry and largely reduce its products, while many individuals would be wholly ruined.

The experiment is now being tried of taking over two hundred millions, in the shape of internal revenue, from the people of the United States; the diminishing and contracting process is already operating, in conjunction with other causes, with great severity upon labor in all its interests and ramifications. Its effects will be signally injurious in a short time, if not counteracted or compensated. It can, however, only be counteracted by a better adjustment of taxes — only compensated by a corresponding check upon foreign competition.

The consuming or rather destroying process of taxation, and foreign competition without corresponding care and favoring legislation on the part of government, is well illustrated in the case of Ireland, a country which has declined from one of wealth and varied industry, with a large production, to one affording the fewest indications of wealth, ease, and industrial progress of any in Europe.

The consumption of iron by a people is a fair indication of the extent to which the whole list of other metals are employed. It is worthy of attention that among the European people who consume the least quantity of iron in proportion to population are those of Ireland. Apparently Ireland is fortunate, in easy access to an unlimited supply of the cheapest iron to be found — iron and steel in England being at a much lower rate than in any other country in the world. It is obvious, however, that Ireland must be limited in her use of these metals to the value of the commodities England is willing to take in payment, and it is well known that, as Irish industry is little varied, it can furnish but a

comparatively small amount for export to England, whence the supply of manufactures, iron and steel among the rest, for Irish consumption must come. The result is, that Ireland cannot purchase English iron, cheap as it is, because she cannot pay for it. It is easier for the people of the United States to make and consume one hundred and twenty pounds of iron per head, at the rate of eighty dollars per ton, than it is for the Irish people to purchase and consume thirty pounds per head at the rate of forty dollars per ton.

Under this English policy the progress of Ireland is downward. Ireland has a fine climate and soil, but the people are hurrying away from it; abundance of bituminous coal, but the people mine only the bogs; water-power, but it is unemployed; abundance of the best iron ore, with coal to smelt it, but makes now no iron, though she once made and sold iron in England; glass was formerly made there, but not now; the linen manufacture once flourished throughout Ireland, but it has nearly departed now, and survives only in the vicinity of Belfast. The Irish manufacturers have emigrated to England. Ireland has little to export to England except agricultural products, and these are never wanted to the extent that they can be furnished. Not only manufactures have gone down, but land and labor have also fallen in price. Labor emigrates; the land cannot. Land in England is worth three to four times as much as it is in Ireland. Great Britain, with four times the population of Ireland exports to other countries one hundred times the value exported by Ireland. The people of England pay annually, per head, taxes to the amount of sixty shillings; those of Ireland eighteen shillings. British policy discourages a varied industry in Ireland, and makes heavy taxation there impossible.

#### WOOL AND MANUFACTURES OF WOOL.

In considering what should be our public policy in reference to domestic production, with a view also to national revenue, our attention has been especially directed to sheep husbandry, and manufactures of wool, as not only of great



national importance, but as suitable to illustrate the whole subject of the relation of industry to revenue. The employments which pertain to the more indispensable articles of clothing are so essential to national independence and individual comfort and well-being, that they should not fail to enlist the attention and action of government in the beginning of our experience under heavy taxation.

The history of wool growing and wool manufacturing in many countries of Europe, and especially in Great Britain, is one of great and varied interest. In the long struggle maintained by tariffs and acts of navigation, whatever was cunning in diplomacy or bold or novel in commercial policy was, for two or three centuries, brought into play to secure permanent advantages in this important industry. The prolonged effort of these nations for preëminence in the manufacture of woollens had the result which can only be attained by national exertion, that of crowning them all with success. England, France, Germany, and the Low Countries all, soon or late, took high rank as manufacturers of woollen goods, which they have increased and maintained to the present time. If this success had been confined to one of these countries, can it be supposed that the others would have been as well clad as they are to-day? Certainly not; they are now well clad in woollens, enjoying the advantage of not being dependent for this article upon what other countries may please to take from them in payment. Their woollen goods are obtained not by sending abroad such articles as other countries may or may not want, but by the exchange of services, labor, and productions at home among those who labor for a living and must labor to live, and who, knowing each other's wants, can promptly adapt the supply to the demand.

The vast armies recently on foot have revealed some truths which cannot be overlooked for the future in adjusting our economical policy. Beef is the food for armies in active campaign, and the stock of the country has been seriously reduced. Not only the beef but the hides were required for military uses. The country was thrown by the high price of

beef upon the consumption of mutton; but the wool was not less important than the mutton. It was soon ascertained that the supply of beef was not more than sufficient, and that the supply of wool and mutton was far from being adequate to the national urgency. If doubled it would not have sufficed to clothe our armies, and furnish meat enough to keep down the price of beef, and prevent too great a reduction of the national herds of cattle.

It is quite apparent that this country has never had a full supply of such woolens as are needful for health and comfort. According to the range of consumption of our population, and the amount of comforts enjoyed, the consumption of woollen goods, per head, should not be less than double the present rate. To complete and adjust the entire circle of national production, sheep husbandry should be stimulated and promoted until our flocks shall be doubled, and our supplies of wool shall exceed 200,000,000 pounds, and our consumption of woollen goods, domestic and imported, shall be equal to ten dollars per head.

The attention of the writer, as one of the revenue commission, has been turned to this important branch of national industry since the commencement of his duties. Believing that the amount of internal revenue demanded by the state of our finances could not be realized without vigorous and proper action of the laboring classes, and that such continuous movement could not be maintained unless all the sources of domestic employment were opened and duly supported, the classes directly interested were invited to a full interchange of views. It is known that during the rise of the manufacture of wool in Great Britain a want of harmony existed between the wool growers and woollen manufacturers which not a little retarded the progress of their industry, lessened their influence with the government, and damaged their interests in other respects. A similar want of harmony and good intelligence was exercising a like injurious influence here.

As nothing can be more certain than that the industrial interests of these two classes in the United States are sub-

stantially identical, it was a principal object to have the fullest possible interchange of opinion between them. Upon the first intimation of the wishes of the commission, the necessary conferences commenced, and continued for more than six months, without much pause, by conventions and separate and joint committees, in which the various interests of each class, and the united interests of both, were subjected to a scrutiny so patient, so intelligent, and so discriminating, that the utmost deference and weight is due, and should be awarded, to conclusions so carefully prepared.

Joint meetings were held in Syracuse, in the city of New York, in Philadelphia, and in Washington.

As the carefully prepared opinions and statements of these committees will form a portion of this report, it is not proper here to anticipate what is so well stated by them. It was assumed, as a point of departure, that growing wool and increasing flocks of sheep were of national importance with reference to clothing, food, and the general interests of agriculture. The experience of many countries had verified this. But at the price of labor now ruling and certain to prevail here in time to come, wool cannot be exported hence to Europe or elsewhere with profit. That on this account, as well as upon the consideration that the use of mutton as food did not present a sufficient inducement to sheep husbandry, it was evident that wool grown here must be manufactured here as a necessary encouragement to the increase of sheep. It was considered that, as a branch of national agriculture, few could be of more importance on account of the vast extent of public lands for which it would increase the demand, and because sheep husbandry tends constantly to the improvement of the soils where it is extensively pursued. It being admitted, on these public grounds, that wool should be one of the great staples of the country, it followed that the manufacture of wool should be one of the principal branches of domestic industry. These two employments would soon furnish for domestic consumption woollen fabrics to the value of not less than three hundred millions of dollars, an amount nearly equal to our foreign trade, involv-

ing necessarily a vast capital, and full occupation with a livelihood for a large population.

The revenue to be derived from such a mass of wealth and production cannot be overlooked in any estimate of the capacity of the country to carry its financial burdens.

In the conferences between the wool growers and the manufacturers it was conceded by the former that their business could not flourish unless the latter were fully established and sustained; that capitalists would not invest adequate sums in buildings and machinery without good prospect of profit and permanency in the business; that without permanency the needful skill and experience in the operatives could not be maintained; that taking into view the price of labor in Europe and the price of labor and of wool here, the manufacture of woollens could not be established here in competition, unless some favor on public ground could be accorded to the manufacturer; and both parties insisted that the importance of the industry in every point of view besides its magnitude made the claim for favorable legislation valid. It was shown by ample proof that wool could not be grown here unless the manufacturers of wool could be permanently established, and that the consumption of woollens could never reach the adequate figure of ten dollars per head of the increasing population, unless wool growing and the manufacture of wool both take their place among the established and successful industries of the country.

The manufacturers claimed that until similar wools shall be supplied at home a considerable proportion of the fine but inferior and very cheap wools of South America, Africa, and other countries would be required to give variety, special qualities, and cheapness to certain descriptions of their woolen goods, but did not resist the claim of the wool growers to have such a duty imposed on these wools as would encourage their growth, and in time supply their place, at least in part, by home-grown wool.

The manufacturers on their part claimed, as these cheap wools entered English ports free of duty, and as the cost of

labor entering into the production of woolen goods in Europe was less than half the rates paid in this country, that such duties should be asked of our government as would place them in fair competition with foreign manufacturers in our own market.

The details of the statements to be made through the revenue commission to Congress were, as will be seen, carefully considered and mutually approved in the hope of their being incorporated into the revenue laws.

Although harmony of views between parties whose interest so far as concerned the intervention of government appeared to be improbable, yet with patient and protracted efforts of those most interested, with much study and candid examination of facts, it was accomplished; and now it may be hoped that other interests, supposed to be conflicting, can with even less trouble be brought to full accord. Other differences, apparently as formidable and mischievous, will disappear before earnestness, intelligence, and patience. The duty of seeking such results rests with those whose minute knowledge of facts and details enables them, by comparison of views, to ascertain a basis on which their interests can be secured, while general advantage is promoted. Instead of wasting labor in opposing their respective views, let a well-directed effort be made in the various departments of industry to ascertain a common basis on which such an industrial policy could be gradually shaped, as time and experience would show to be at once wise as public policy and favorable to industrial enterprise. There is every reason why this attempt should be made among those specially concerned in the various departments of labor, by confronting those whose interests are regarded as adverse. It is enough for the public authorities, upon full consideration of what private parties have in this manner stated, conceded, proved, and suggested, to determine what should receive the sanction of legislation, and become a national policy to be relied upon as established and permanent.

It is just as important, if private capital is to be invited or encouraged to invest in productive industry, to make the terms favorable as it is if the invitation be to invest in



national bonds. And if the ability of the country to pay heavy taxes is to be maintained and increased as a provision for future exigencies, every stimulant and security should be offered to capital and labor which the country can command. Whatever may be the adjustment of the burden of taxation, it will be found that the larger the amount in value of national production, the more diffused will be the burden, and the lighter will it bear upon those who carry it.

If the States be taken separately or in groups, their ability to bear taxation will be found to be in proportion to the magnitude and variety of their production. The value of the annual production per capita, according to the census of 1860, is stated as follows :

New England States .....	\$149.46
Middle States.....	96.31
Western States .....	37.53
Southern States .....	17.08

This striking result is the product of diversified industry, aided by a large use of machinery.

The statement becomes more definite and instructive when the States are compared separately. It is impossible not to see in the following table that the ability to endure taxation is in proportion to the power of production, and that the magnitude of production depends upon the extent to which it is diversified :

STATES.	Popula- tion.	Manufac- tures and Produc- tions.	Per Capita.	Internal Taxes Paid in 1864.	Taxation per Capita.
Rhode Island .....	174,620	\$2,797,893	\$16.00	\$3,946,846	\$22.58
Massachusetts .....	1,231,066	15,541,792	12.61	23,250,866	18.83
Connecticut .....	460,147	4,359,979	9.45	6,009,998	13.04
New York .....	3,880,735	23,770,513	6.12	48,940,666	12.60
New Hampshire .....	326,072	2,007,061	6.15	3,424,917	10.47
New Jersey .....	672,035	4,423,210	6.58	7,157,012	10.64
Pennsylvania .....	2,906,215	16,868,411	5.79	27,811,537	9.55
Maryland .....	687,049	2,587,101	3.76	4,966,085	7.22
Ohio .....	2,330,511	8,896,407	3.82	15,296,123	6.56
Illinois .....	1,711,951	5,007,821	2.85	9,174,370	5.35
Missouri .....	1,182,012	2,720,592	2.29	5,243,540	4.43
Kentucky .....	1,155,684	2,412,431	2.08	4,591,346	3.97
Michigan .....	749,113	1,391,782	1.86	2,544,025	3.39
Indiana .....	1,350,428	2,627,356	1.92	4,571,521	3.38
Vermont .....	628,276	1,791,018	2.80	2,408,367	3.83
Maine .....	315,116	437,623	1.40	773,658	2.47
Wisconsin .....	775,881	868,263	1.11	1,175,200	1.50
Tennessee .....	1,109,801	1,055,829	.95	1,516,967	1.36

It is thus seen that each individual of the four manufacturing States of New England pays \$18.83, \$22.58, \$13.04, and \$10.47, or an average of \$16.23, whilst each person of the two agricultural States, Vermont and Maine, pays \$2.47 and \$3.83. The same result is apparent throughout all except the States producing the precious metals, evincing that a varied industry is the true basis of a large average revenue.

It is not difficult to see that a diversified industry can only flourish when founded on large domestic consumption, and this can only be permanent when the consumers are near enough and have needful facilities for exchanging with each other the whole products of their respective labor. The power of consumption does not depend, as is often erroneously asserted, on the power of production solely, but upon the willingness of the producing parties to exchange with each other what they can respectively produce. The labor and machinery, soil, and skill of the people in this country can produce commodities to the value of three thousand millions of dollars, but, of these commodities, less than to the value of four hundred millions of dollars find a market abroad. There is a similar restriction running throughout our whole domestic trade. People will take from others only what they can use or sell again. Yet, under this natural limitation, the domestic exchanges exceed the foreign in the proportion of nine or ten to one. The industry that is directed to the purpose of producing commodities designed for foreign markets must be confined to what is marketable abroad, and that is a very narrow range compared with the whole circle of domestic production. If the United States were wholly dependent upon Great Britain for iron and steel, copper, lead, and other metals, the consumption would be less than half what it now is — we could not pay for more. As remarked elsewhere, the people of Pennsylvania can pay her own manufacturers for 500,000 tons of iron, but they have no product which they could exchange yearly in England for 50,000 tons.

In every case, when it is desirable on public grounds that the consumption should be large, it can only be attained by domestic production and the processes of home trade and

exchanges. But this rule of domestic economy, always sound, becomes vastly more important when the demands of heavy taxation are taken into account. A production large enough to make a large consumption possible is only attainable when home industry is under the full stimulus of an ample home market for all that labor can accomplish. A full illustration of this can be found in every aspect of our foreign as well as our domestic trade. The people of New England direct their industry to the production of all that is needed in the United States; and while they are thus enabled, with the products of their labor, to purchase whatever the country can yield, they furnish a market of equal value for the products of the other States. The interchange of labor between the New England States and those further south and west far exceeds that of the whole country with Europe.

It is obvious that there is only one line of policy, in fact, which can fulfil at once the demands of revenue, the interests of individuals, and the requirements of true national policy. It is that which will diversify industry, thus inviting a large consumption, opening a steady market, rewarding private enterprise, increasing public wealth, and establishing a solid basis for permanent revenue.

There are certain classes of commodities the domestic manufacture of which is so essential to national self-respect, as well as to civilized comfort, to progress in all the arts of industry, that they recur at once to the mind as national productions. The efficiency of this production should be of the highest order possible, reaching not only to the utmost perfection in quality, but to the utmost limit in quantity and cheapness. These articles are such as manufactures of all the useful metals, but especially of iron, steel, copper, and lead, and of wool, cotton, flax, leather, paper, glass, soda ash, chemicals, medicines, household furniture, and earthenware.

We have the necessary skill, much the largest portion of the raw material, and other needful facilities for the production of a full supply of the commodities thus indicated. The nominal price to consumers would be higher, but the range of rates would be in proportion to the price of labor

throughout, and the benefit of higher compensation would inure to every class and profession. The great struggle which has been going on in this country between foreign and domestic labor, owing to our want of a fixed industrial policy, has continually repressed manufacturing enterprise and checked the progress of consumption to such an extent that it is now far below what it would have been if domestic production had been adequately sustained. The hesitation to sustain manufacturing labor is a hesitation to favor general industry, to favor the employment of laboring men and women, to favor national independence, and to build upon the only sure source of adequate and permanent internal revenue. If manufacturing industry, properly supported, should raise up a wealthy class, the internal taxation will afford a ready means of obtaining a full contribution from this wealth to the public treasury. Without a vigorous manufacturing industry, with increasing capital from its savings, the productive power of the country must fall behind, and the sources of revenue be proportionably seriously diminished, if not dried up.

STEPHEN COLWELL,  
*Of the Revenue Commission.*

HON. HUGH McCULLOCH,  
*Secretary of the Treasury.*

## ELECTRICITY, HUMIDITY, AND YARN CONDITION.

BEFORE it is possible to understand the necessity for condition, and the dangers that it brings in its train, it is necessary to understand the underlying causes that have led to the present methods of applying it.

Condition is moisture. It ought always to be moisture contained within the substance of the fibers that compose a certain top or strand of yarn. But this is not always so, and to get this subject into its true perspective it is necessary to turn back to the ultimate composition of the wool itself.

In wool at a temperature below boiling point, water is always present, and even at that temperature and above, oxygen and hydrogen form above 25 per cent of the weight of the material of which the fiber is composed. But, so far, no one has decided whether that oxygen and hydrogen are water of combination or are part and parcel of the structure of the albumenoid substance. This is not the place to go into the obscure problem of the chemical construction of wool, and the above figures are only mentioned to show the difficulty of obtaining any starting point that can be regarded as a sound theoretical basis for calculations. It is better to base all calculations on known facts that are of very practical utility.

I shall speak of wool as being dry, on the basis adopted by the conditioning house. That is to say, a top is dry when it has been at a temperature of 212° F. for a long enough time to drive off as steam all the water which exists in the fiber in a free form. All oxygen and hydrogen that are not driven off by that means must be regarded for all practical purposes as part and parcel of the fiber itself.

Wool has a great natural affinity for water, and even wool clothes which are supposed to be quite dry contain a very appreciable amount of moisture. This is best illustrated by the fact that tops seldom contain less than 10 per cent of water as they come "red hot" from the circles of the combs,



which are themselves at a temperature eight degrees above boiling point, but of course every one knows that tops in this condition would not spin at all if sent to the drawing as they are. To make them fit for use they must be kept, in order that they may set. Now the ultimate reason for "setting" is not easy to understand. A combed sliver as it comes hot from the gill box, without any twist, will break very easily if a slight tension is applied to it. The older a top is, the stronger does it become! For three months at least its spinning value also continues to improve, if it be kept in a suitable place.

After that length of time the fibers in some tops develop an apparent tendency to adhere to one another which makes it difficult to move them on one another; in other words to draw or draft them. As a rule this only applies to tops which are combed "in oil;" "dry" tops are seldom if ever set too much, and undue setting may therefore be attributed to some latent effect of the oil, and may be disregarded so far as condition, pure and simple, is concerned. We must therefore try to decide what part moisture really plays in setting.

#### ELASTICITY OF WOOL.

The moisture in itself plays no part at all; for an unduly wet top may be very loose indeed. Probably wool has no characteristic so marked as its elasticity. However long it may remain in a given position in a yarn or piece of cloth, any given fiber will invariably try to get back to its original straight wavy form if it be moistened and left free to dry. On the other hand, if it be held in any given position when moist and kept in that position it will "set" in that position and retain the shape given to it, until it is moistened.

This is the reason why pure worsted cloth and linings show so little tendency to crease in wear. It is this property of wool that makes the top set when kept. If fibers come wet from the gill box, and be made into a ball with the fibers stretched out approximately straight in the ball, they are kept in that position by the structure of the ball and the

pressure of other fibers on all sides of them until they reach their normal condition in the course of days or weeks, and by that time they have set nearly straight and have no tendency to shrink or curl until they are again wet.

Even if combed at normal condition the heat of the comb and the effect of washing leave the fibers soft, until they reach the ball and have time to cool. If on the other hand the sliver comes very dry from the gill box, the setting will take a longer time, because the fibers will have to absorb the normal amount of moisture from the air before the process can be complete.

Unfortunately, theoretical considerations are not the only ones which regulate condition. There is a purely commercial aspect of the case which demands the most careful attention. In most transactions there are three contending interests. The spinner (or buyer) wants to pay for as little water as possible, and just as much oil as will make the top spin in the best possible way. He knows that it will pick up all the requisite moisture if it be left to lie in his cellar. It is to the interests of the top maker (or seller) to have as much of both oil and water as the top will carry, because both reduce the cost of the top. The comber is anxious to put on as much water as the spinner will take, and reduce the amount of oil as far as the maker will allow, in order that he may be paid for as much weight as possible whilst expending no more than is absolutely essential on the cost of production (that is, on buying oil).

#### A STANDARD OF CONDITION.

It was a considerable time after the introduction of commission combing before it was possible to fix a standard of condition, which would meet the wishes of these three opposing interests. The first conditioning house in Bradford adopted a standard for oil of six drams to the pound or  $2\frac{1}{2}$  per cent for all classes. But as different qualities of wool absorb different amounts of oil, this hard and fast standard had to be abandoned, and the percentage is now arrived at by mutual agreement or consent.

The fixing of a standard for moisture was quite a different matter. Wool has a great natural affinity for water and, even when wool is combed on circles at the usual heat of 220° F., and is finished without the addition of any water, it is so far from "bone dry" that every pound of top will contain one and one-half or two ounces of water. In other words, the driest top will contain at least 10 per cent of moisture. But it is also well known that tops combed with this minimum quantity of water will never spin well, until they have been put into a cool, moist atmosphere to set.

It was early discovered that tops combed without the artificial application of moisture not only set, but increased rapidly in weight when left in a cool, damp place. It was also noticed that they continued to absorb moisture from the air until they reached the condition in which they were best fitted for spinning. Beyond that point they increased no further in weight, and careful testing showed that nearly all classes of wool have the power to absorb water up to just about 19 per cent of their original weight. Beyond that limit nothing but the mechanical application of water or a super-saturated atmosphere will increase their weight further.

The commercial side of the question of condition has reference to the cost of the top. The more water a top contains, the cheaper will it be to the maker, and the more will it lose in the process of spinning.

If one hundred pounds of greasy P.P. wool costing 10d. will give forty-five pounds of top and four and one-half pounds of noil at 19 per cent regain, it will cost one-sixth of a penny less if it contains  $2\frac{1}{2}$  per cent more moisture, and it is therefore the object of the conditioning house to ensure that a buyer may have his tops at trade standard, so that he may be paying for the correct weight of dry wool fibers in every pound of conditioned tops that he buys.

This question of cost is so obvious to every one who has been in the trade, either as buyer or seller for a short time, that it is not worth while to discuss it here. The more important question for us is the effect of moisture on spinning value and its effect on yarns when they are spun.

## EFFECT OF MOISTURE.

Tops which are too dry and tops which are not set have always a tendency to "fly" in drawing and spinning. That is to say, the fibers which compose the top try to get away from one another instead of lying close together. Some fibers actually get away from the sliver in the drawing boxes and fall on to the floor. Others adhere to the rollers and flyers, making brush waste and fly, which is dead loss to the spinner. But perhaps the worst trouble comes in the spinning process itself. Fibers adhere to the rollers instead of lying side by side in the yarn, cause the thread to break and form laps on the rollers which again cause dead loss to the spinner. And finally the fibers which try to escape, but do not quite succeed, stand out from the thread as it goes on to the spool and make the thread so rough that the outside of the spool is covered with a beard.

This is a bare statement of fact ; it is the object of this paper to point out and explain the underlying causes of these well known phenomena.

## ELECTRICITY IN WOOL.

It has long been known that the treatment of wool in its preparation for spinning is very seriously affected by its electrical condition. Up to the present time practical men in the trade have simply said that electricity was produced in the boxes, and that when it is so produced the fibers instead of lying side by side take every possible opportunity to get as far away from one another as possible.

Usually this action is confined to individual fibers, but I have seen wool so charged that two strands of a roving running from the front roller of a cone box to the flyer ten inches away, did not run side by side, but were two inches apart midway between the fixed points.

The known facts are these :

1. The newer the top and the less oil and water it contains the greater is the chance of electrical action.
2. The drier the air the more pronounced will be the

result. Air which is artificially humidified usually prevents the production of electricity or destroys electrical action by allowing the electricity to escape.

3. Dry frosty weather usually makes for strong electrical action in both dry and oily tops, — but

4. Frost, with an east wind [Yorkshire], may make the action so violent that fibers which ought to be lying side by side endeavor to get away from one another and often succeed, even in a much humidified atmosphere.

The results are painfully obvious:

1. In their mildest form, fibers that have one end free will stick straight out from the thread of which they form a part, making that thread rough and uneven.

2. When the production of electricity is greatest, the various fibers composing a half completed thread repel one another so strongly that the thread or sliver breaks down, thereby causing very imperfect work and the production of waste material.

Only three means seem to have been tried to mitigate these evils:

1. Insulation of the machinery, which has never been perfectly done and was therefore no use.

2. Electric connection between the machinery and the earth, which did no good at all.

3. Artificial humidification of the air in factories, which has its drawbacks, but does successfully dissipate electrical action except in very extreme cases.

The scientific side of the problem seems to have been entirely neglected. No one appears to have found out:

1. The sign of the charge that causes the trouble.

2. Whether it was caused by the action of the metal or leather rollers on the fibers.

3. Or by the movement of the wool fibers on one another.

#### SOME INTERESTING EXPERIMENTS.

It was usually concluded that the metal of the machinery had a good deal to do with the trouble, and this was sup-



ported by the usually accepted theory of scientists that the friction of two different substances on one another is necessary to generate static electricity or to disturb its balance. These views were held in spite of the fact, known widely in the trade, that the rupture of a sliver when held in the hand often causes plain evidence of electrical disturbance, and if my experiments have done nothing else they have shown to demonstration that, under many conditions where wool fibers move on one another, the balance of their static electricity is seriously disturbed.

The object of my first experiment was to find out the reason for the production of the charge, with a view to avoiding its taking place or else for the purpose of finding a means for its escape as soon as it is formed. But to get at this other information was absolutely essential, viz.:

1. What really takes place when the balance of static electricity is upset?
2. Does one charge play more part than another in the practical difficulties of spinners?
3. What means are available to set free the charge in the laboratory and in the factory?

The very simple experiment of rupturing a sliver over an electroscope proves conclusively that the movement of dry wool fibers on one another does disturb the balance of electricity. And the fact that when the sliver is broken the majority of fibers in one end are attracted by the fibers in the other end is clear proof that one end is charged positively and the other negatively, because like charges repel and dissimilar charges attract one another. It is of course only reasonable to expect that this should be the case, and further that the two charges should be equal in amount as well as opposite in sign, and that the effect of both would be cancelled if they were brought in contact.

In the machinery the collection of fibers which is called a sliver is never ruptured. It is only extended in length. The fibers never part, but move on one another and then remain in contact; fibers that are charged plus and fibers

that are charged minus lying intermixed. At first sight this makes it the more curious that repellant action should be visible and should be so strongly marked, for it is natural to suppose that the two opposite charges would exactly neutralize one another.

To make this clear Dr. Stroud suggested the construction of a metal tube eighteen inches long and eight inches in diameter to stand on the electroscope so that a sliver could be ruptured within it, without the possibility of either charge escaping. When the experiment was tried with bone dry top the rupture had not the slightest effect on the gold leaf, showing that the charges generated were exactly equal and opposite, but the moment either end of the sliver is withdrawn from the tube the other violently affected the gold leaf.

Now in practise the fibers which contain the opposite charges do actually remain in contact, and it is therefore difficult to see at first why their action is so powerful in the machinery, but early on a frosty morning in March I got the statistics I wanted.

#### A SLIVER IN A TUBE.

In drawing and spinning worsted yarn all slivers are extended between two pairs of rollers (AA and BB, Fig 1).

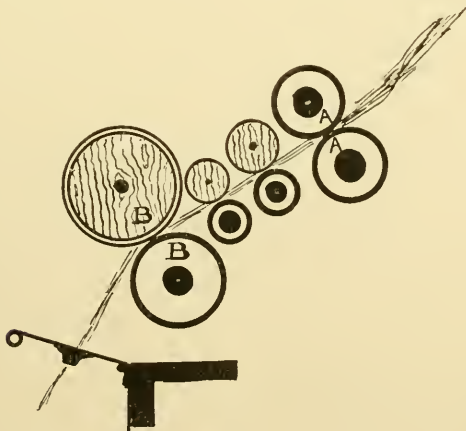


FIG. 1.

One pair, A, have a surface traverse of one inch per second, the other pair move at say six times that surface speed. The consequence is that between A and B the sliver is extended to six times its original length. This is not due to stretching, but to the movement of the fibers on one another and it is easy to see that the movement must be not only continuous but rapid.

As is the case when a sliver is ruptured within a tube, no sign of electrical disturbance is obtainable if a wire from the electroscope E is allowed to rest on the moving fibers between A and B at C, Fig. 2. Neither is there any trace

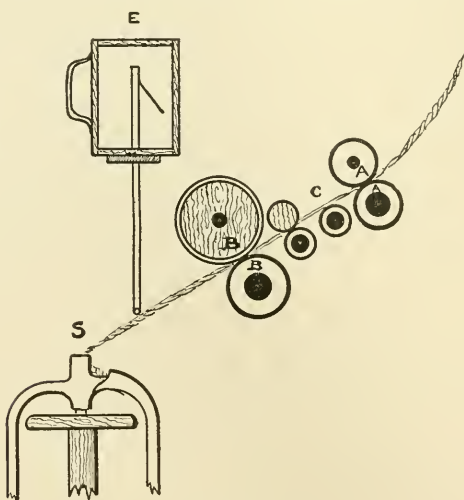


FIG. 2.

behind the roller A. But when the same wire from the electroscope is placed in contact with the fibers where they are all moving forward at exactly the same speed from the rollers B to the spindle S (Fig. 2), the electroscope is immediately affected by a charge which is the reverse of that produced by rubbing vulcanite on silk. In other words, the wool at that point carries a strong positive charge and the question is narrowed down.

What has become of the negative is now the problem,

We have proof positive in the first experiment that the movement of the fibers on one another does generate the electricity and that the charges are equal and opposite. It is therefore easy to see that no amount of disturbance will affect the electroscope until one or other charge has escaped, and the whole crux of the question may be stated in a very short paragraph.

All fibers that carry a minus charge give up that charge the moment they touch the rollers, whereas the plus charge adheres most tenaciously to the wool even after heavy pressure against metal. And the moment that the fibers emerge from the rollers the plus charges repel one another vigorously. The fugitive nature of the minus charge is already well known to science, and in regard to wool it is extremely easy to prove.

So far as experiments have yet gone it seems that the exact reverse takes place with cotton — for where electricity is developed in cotton drawing the charge which remains on the cotton is negative. Cotton is usually worked under conditions which minimize electric disturbance, and data are therefore hard to obtain, but there are cases where highly charged wool and less highly charged cotton are blended in one box, with the result that all traces of electric disturbance disappear in a moment and enable the blend to be worked with ease in the worst possible weather; but on account of the paucity of data we must confine ourselves for the present to the escape of the negative charge from wool.

If the atmosphere be dry and if the two ends or tufts made in the first experiment be returned to the tube after lying for a few minutes on the table, the electroscope will be affected because the negative charge will have escaped into the air, whilst the positive charges will still adhere to the wool. In a moist atmosphere both charges will escape, the negative going rather more quickly than the positive; but the fugitive nature of the negative charge is seen most readily if the two tufts are pressed between metal plates. The lightest pressure will effect complete discharge of the

negative electricity, although heavy pressure on a well earthed plate will not free the positive charge, even when the layer of wool is very thin indeed.

This of course agrees perfectly with the accepted scientific theories. It seems quite impossible to prevent the escape of the minus charge, and it therefore only remains to find some means to facilitate the escape of the positive charge as well.

#### FOUR DIFFERENT METHODS.

In laboratory experiments this is perfectly easy. It can be done by (1), two metal plates if heated to 100° C. will discharge the positive as rapidly as the negative; (2), the products of combustion from a flame are equally efficacious whether they contain water vapor or not; (3), a warm moist atmosphere will do the same, and (4), the emanations from radium or the rays from a Crooks tube will discharge both plus and minus charges very rapidly.

Up to the present only one of these four methods has proved of any use in practice, and none of them are sufficient to discharge all the electricity that is produced on the wool in frosty weather with a dry east wind.

1. Every one knows that wool can be combed successfully only on hot pins, and it is now being generally recognized that heated card rollers do better work than cold ones. There is little doubt that the hot pins discharge the electricity that is generated by the rapid movement of fibers on one another, in the processes of carding and combing, just as hot plates discharge it in the laboratory, and if practical considerations would allow of the application of equal heat to spinning rollers, it is quite likely that the electricity would all escape. But, at the same time, the fine strands of wool fibers would become so dry that they would not work in later boxes without the application of more water, which is impossible in most cases.

Nevertheless this fact should not be forgotten. Every one knows that where machinery gets very cold on Saturday and Sunday the spinning is very bad (almost impossible) on Monday, until the temperature not only of the room but of



the machines has risen again. It is almost certain that heated rollers would ensure a better spin in winter. But the loss of condition in such a case must be borne in mind.

2. The use of products of combustion, which is the most successful of all laboratory methods, is one which is possible in practice although it is not easy to apply.

It has long been known to physicists that an electroscope could hardly be charged and would be quickly discharged if a flame were burning near it. It was thought that the production of water vapor by the combustion of coal gas and nearly all other substances was the reason of this effect, but I found that a flame of C. O. (carbon monoxide) which produces no water vapor, because it contains no hydrogen, had exactly the same effect as an ordinary Bunsen flame. And it is clear that flame as flame has some definite effect on the air that renders easy the discharge, diffusion or passage of static electricity.

The difficulty of using flame lies in the fact that its efficacy is in proportion to the square of the distance above the top of the flame. And it is necessary to have the flame so close to the wool that there is great danger of charring it. Whereupon the cure would be worse than the disease.

3. The use of an extremely moist atmosphere is the system most easy of practical application. Humidifiers are in extensive use in many textile factories to-day and if I had the opportunity of working further at this subject I should try some combination in which the results obtained from hot plates, products of combustion and humidity were all combined. Rollers might possibly be heated by flame, and humidity applied locally to destroy the evil effects of the flame.

4. The use of X-rays radium to make the air conductive is wholly out of the question on the simple ground of expense, and, moreover, their constant use would be dangerous to workers just as it is to doctors who continually work with Röntgen rays.

This brief outline may convey some idea of the intricate problems that are involved in the question of condition and

its solution; and as these are not yet solved because the difficulties of practice are so great, it may be most instructive to turn to the things that are now in use and then consider the results that condition causes.

### THREE FORMS OF HUMIDIFYING.

The air of a spinning room may be moistened by three entirely different means:

- 1st. By the introduction of free steam.
- 2d. By the introduction of air saturated with moisture.
- 3d. By the introduction of water spray or vapor.

1. The use of free or live steam was the first method used, and has the advantage of extreme simplicity, but it cannot be used without raising the temperature; and the moisture introduced in the form of steam is very liable to condense and fall when it comes in contact with air at a low temperature. For these two reasons it may now be considered obsolete.

2. The use of moistened air has the great advantage of keeping the air of the room fresh. The apparatus used may vary to almost any extent.

A. Air may actually be pumped through water and then admitted to the room.

B. Or it may be driven through a chamber in which there are a large number of jets of water or a dense spray of pulverized water.

C. Or, thirdly, it may be sucked through the windows of the room into boxes in which humidifiers are at work and distributed to various parts of the room in large pipes. This system involves no alteration to the fabric of a building. The air is uniformly moistened and as the water is literally absorbed by the air before it escapes into the room there is little chance of condensation or deposition. It is a system much favored in the cotton trade and is very efficient.

3. The use of water in a fine state of spray is also a favorite method. In the earliest systems constructed on this principle the water was pulverized exactly as in an

ordinary scent diffuser, by blowing air at high pressure across the top of a pipe containing water. Much of the spray thus formed was too coarse to be absorbed, so the jet of air and water particles was made to impinge on a plate or table. Such of the particles as were very fine rebounded and were driven off into the air in a thin cloud to be quickly absorbed. Many of the larger particles were pulverized on the plate and also absorbed, whilst those which were more of the nature of drops fell into a basin below the table and went again to the nozzle.

The greatest drawback to this apparatus was its liability to get slightly out of order and deliver a spray which was too coarse to be absorbed by the air. Drops then fell on the machinery and caused rust and discolored work. It is not necessary to follow the transition of the humidifier through all its stages, but we may turn at once to the perfected form of one which has done good service for many years.

In this system water is supplied at high pressure by a force pump. In the first place it passes through a large self-cleansing filter on the main feed pipe, then along the distributing pipes to the small self-cleansing filters attached to the sides of the humidifiers, where any minute particles of dirt or fiber will be caught.

The water then passes to the spraying nozzle in the cylinder of the humidifier, whence it is expelled at high pressure in a perfectly straight jet, which impinges immediately on the flat end of a hardened nickel pin. As a result of this impact the water is split up into a cone of fine spray, moving at a high velocity, which extends to the sides of the cylinder and causes a strong current of air downwards through the cylinder. The air thus induced to pass through the spray is thoroughly moistened by the absorption of the finest particles of water and is delivered from the lower portion of the apparatus into the air of the room.

The coarser particles of water, on the other hand, fall from the sides to the bottom of the cylinder and return to the pump by the return pipe.

By this system the air of a room can be humidified to any extent short of, or even up to, saturation, and it proves very efficient in preventing all formation of electricity in drawing and spinning dry combed yarns, except under very extreme conditions of temperature and atmosphere.

#### COTTON AND WOOL.

In the cotton trade humidifiers of this and other types are also used to produce a very damp atmosphere in rooms where yarn is stored to mature and to gain weight. In many places the practice proves very successful, and the yarn sets and gains weight rapidly, but it must be borne in mind that cotton does not cockle or crimp or shrink unevenly when wet and cotton yarn for two-folding is often tipped into tanks on the spool before it goes to the twist frame. Installations have been arranged on the same plan for worsted storerooms, but I do not now know of any that are in use.

Worsted differs from cotton entirely in the way it is affected by moisture. We have already seen how great is the affinity of one for the other, and all conditioning of worsted yarn ought to be carried out in such a way that all fibers on a bobbin are equally affected. Of course this is impossible by any mechanical or artificial means, for the outer layers of yarn on a spool pick up the damp from a very moist atmosphere or damp cloth far more quickly than the fibers and strand within the spool. It is this picking up of more water by some parts of the yarn than by others that is the source of so many faults in the worsted trade.

Undoubtedly cockling, crimping, and curling as seen in the crossbred demi and luster yarns is the commonest as well as one of the most serious faults that can arise, but it is far from being the only one.

It is, of course, impossible to go into particulars of all the various faults that may occur, but it may serve a useful purpose to point out what may occur in two other entirely different types of yarn and cloth, in the fine single yarns used for the manufacture of Italians and dress goods, and in two-fold serge yarns.

In the first place one must always remember the tendency of wool fibers when wet to revert to their original crimped and curly form.

When they so crimp they of course become shorter in length. If all the fibers in a thread are equally moist the thread itself will shrink in length and increase considerably in bulk. This is most plainly seen in the scouring of two-fold yarn in hank, when the yarn is left to dry to its natural length.

A very different lesson may be learned if the yarn be stretched and left on the stretch to dry. Each fiber will then dry almost straight and the result will be that the yarn is straighter and smoother than it was when it came from the reel.

If, on the other hand, all the fibers in a thread are not equally moist the shrinkage is not uniform and the result is nothing short of disastrous. As a rule certain portions of the thread contract in length, but the fibers that remain dry retain their original length and are thrown up on to the surface of the yarn in loops or curls (see Figs. 3, 4), which entirely spoil the surface of the finished cloth.

#### CONDITIONING YARN.

To get a clear idea of the effect of this shrinkage it is important to understand first, the means that are adopted to condition these various classes of yarn, and then to see the bearing of the system on the yarn itself.

1st. We will take the conditioning of weft on spool and tube with special reference to Nos. 24, 30, and 32 bright crossbred demi luster and luster yarns. In the first place it is absolutely necessary that the yarns should be set before they are woven. The fiber in all of them is so springy that if they are taken from the spool or tube at once the effect of the twist causes them to curl and snarl so much that there is great danger of the yarn coming off too quickly, forming thick places in a piece where two or more threads lie together in the same "shed." This desirable setting is best accomplished by leaving the yarn in open skeps for a



long time in a cold but not damp cellar. They will there pick up sufficient moisture in three weeks to allow the fibers to bed in their new twisted position in the thread. And when the fibers are so bedded their tendency to revert to

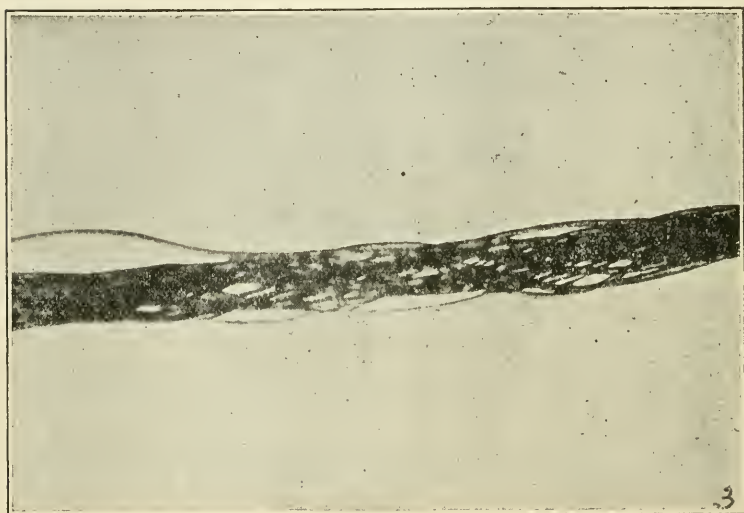


FIG. 3.

their straight wavy form is slow. So slow that there is plenty of time to get the yarn into the cloth before it takes place.

This is the ideal way of setting and conditioning all yarns, but there are two obvious and serious objections to it. In the first place a man who requires a yarn spinning to any special count must wait a month for it before he can have it, — a state of affairs that is often impossible in the present state of trade, when everything is done at express speed.

In the second place it means that a spinner who turns out twenty-four thousand pounds of yarn a week must always have eighty thousand pounds of yarn in stock. This involves the possession of nearly two thousand additional skeps and the payment of rent for a very large cellar in which to keep them.

Then comes the question of increased cost due to the interest on yarn lying idle. Eighty thousand pounds at two shillings per pound is £8,000, and interest on that sum is no less than £400 per annum on capital borrowed at 5 per cent. True, it is only one-twelfth of a penny per pound, but £400 per annum is an amount which no firm can lightly disregard unless it is absolutely sure that it can make it up by some certain means.

Now unfortunately it is by no means certain that the figure can be made up, for the same amount of moisture can undoubtedly be got into the yarn by other means in a much shorter time. In fact more weight can be got in in much less time, and it therefore becomes a question whether it will pay the spinner to keep his yarn in a damp cellar or to use a conditioning machine and take the risk of evil effects due to carelessness in the manipulation or to the inherent defects in the principle of all conditioning machines.

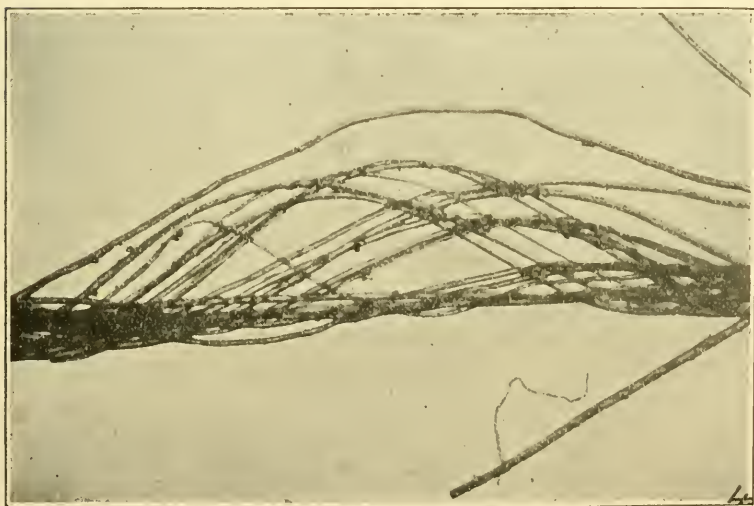


FIG. 4.

In a cellar which is damp enough to set and condition the yarn in a week, the item for interest will be reduced from

£400 to £100 each year, and the expense for rent will be proportionately lower, but even a damp cellar will injuriously affect the most susceptible class of yarns, however much care may be taken of them whilst they are in it. In the outer layers of every spool or bobbin, the fibers are not held in place by superimposed yarn and these fibers are certain to shrink somewhat as they get damp. On the other hand, it is natural to suppose that the damp will permeate very slowly to the center of the spool. That in itself would make it less injurious. But the yarn below the surface is also held tightly in place by the outer layers, and therefore the fibers are not able to alter their shape or position as is possible on the outside of the spool.

#### VARYING RESULTS.

This means that yarn on the outside of the spool must of necessity differ from all the inner layers in character if the conditioning process is done rapidly, even if the yarn does not actually come in contact with water in drops or on a damp cloth.

Owing to the very peculiar way in which yarn is wound on to all spools the outside is not all wound off first; the first three or four yards come from the outside of the nose, then comes a second layer which has been less exposed to the air and then say three inches of outside again. This goes on throughout the whole unwinding of a spool; first comes a long length from within, then three inches from the extreme outside.

Now, it is obvious that when a spool has been so treated that the inside and the outside are differently shrunk or swelled, there will be three inches in every three yards that differ from the bulk, and the constant recurrence of these three-inch lengths at frequent intervals across the piece must show in one way or another. Their relation to one another depends on the length of the traverse in the building of the spool. If the length of yarn in one traverse of the lifter be three yards and the width of the piece be fifty-four inches, it is clear that the three inches of outside yarn would

come in the same section of the piece every other pick of the loom. That would of course make a rough or thick place; as a matter of fact the pick and the traverse seldom bear such definite relation to one another and the consequence is that the fault is spread about over the width of the piece in such a way as to give a regular ----- irregularity which often looks like a water mark. It is not always easy to see in the gray, but it is a very common fault especially in Italian and cashmere yarns, and if any one thinks that a certain yarn has this fault in it he can easily make it visible by chalking a spool all over with blue chalk and then weaving it into the cloth. The result generally resembles a water mark and is a thing much better to be prevented than cured.

In coating yarns the same fault gives a very different result. If the yarn be spun on to double-headed bobbins and left to lie on them in a cellar before being twisted, the outer layers of the bobbin swell whilst the inner ones remain closed and smooth.

When two of these bobbins are put on to a twist frame the first twenty yards at the bottom of the spool will be thick and bulky, and the yarn on the rest of the spool will show less and less signs of condition towards the nose. This will show weft bars of a very peculiar nature. Each spool will begin with a strongly marked contrast to the one before it. Picks, counts, twist, and tension will all be right, but the piece will be ruined none the less.

Yarn allowed to get very dusty in the single will produce the same kind of mark, which will take a lot of washing out. It will probably take so much washing out that the piece will lose greatly by shrinkage and it will not be the manufacturer's fault. Condition gives other effects in serges which are less easy to see, but which are none the less deadly on that account.

#### LEAVING YARN UNCONDITIONED.

Personally, I am of the opinion that many kinds of yarn might be left altogether unconditioned with great mutual

advantage to both spinner and manufacturer if they would only put their heads together. Let us take a super 64 Italian yarn. In a normal way it would have about 10 or 11 per cent of moisture in it as it came from the frame, and after three days in a cool place it would probably gain another 1 per cent. In that time it would be sufficiently set to weave and it would be absolutely uniform throughout. If it were to be sold at standard rate of condition of  $18\frac{1}{4}$  per cent regain or 15 per cent total, it would need 3 per cent more of water to reach that standard, and if it were originally spun to sixty-four this addition would make the counts sixty-two. For this reason it is general to spin yarns on the frame to two counts finer than they are to be sold for.

Now, let us see what would be the position if a contract were made to buy and sell the yarn without condition. The spinner would want 3 per cent or 3d. a gross more than the price of conditioned yarn. He would be saved all expense of holding stock and all risk of damage; the weaver would obtain a yarn two counts finer than he bargained for; each pound would contain one thousand one hundred and seventy-six yards more. This would fully make up for the extra price, and in addition he would make a better piece. The yarn would go in better and the piece before finishing would look smoother and slightly thinner, although there would be exactly as much wool to the yard. The advantage would be most apparent when the piece was dyed and finished. Conditioned yarn is already partially swelled and it cannot therefore swell much more in finishing. The consequence is that unconditioned (unswelled) yarn nearly always covers better than that which is conditioned and makes a fuller piece at no more money. It is true that this is not the case in all classes of goods, but this is only one more example of the fact that there ought to be much more elasticity in the methods employed in the worsted trade.

#### MACHINE CONDITIONING.

Doubtless, however, most readers are concerned with the effects of machine conditioning, for in these days of keen



price cutting a great deal of yarn has to be sold at full trade standard in order to come in at a price, and it is inevitable in consequence that the results of too much moisture should often show.

There are many qualities of demi's and lusters which cannot possibly be free from curl if they are conditioned up to the standard limit. No matter how carefully they are done the effect of water will show, and it is yet an open question for spinners of this class to decide what limit of moisture they will aim at. There are spinners who never use a machine at all and their work is certain to be more free from faults in consequence, but it is the more usual practice that interests us, and we will now discuss the pros and cons of the question.

The "machine" in most common use is such a simple piece of apparatus that it scarcely deserves the name of a machine at all. It is really only a long open box or trough say twenty feet in length by three feet wide and two feet deep. At one end is a tank full of water containing perhaps one hundred yards of canvas or coarse linen. Above it are a pair of small rubber squeezing rollers rather wider than the box.

The process begins by putting one end of the canvas through the rollers and turning them until the superfluous water has run back into the tank and twenty feet of very damp cloth are covering the bottom of the box. On this stout paper is laid and the spools to be conditioned are emptied into it. They are spread as evenly as possible by hand, and covered with paper and with a second layer of wet canvas. On the canvas is laid more paper and more spools and so on, until the box is full of layers of spools with two sheets of paper and one of the wet canvas between each.

In this way they are left over night, and in twelve hours a large part of the moisture in the canvas has been absorbed through the paper by the yarn on the spools.

One thing is absolutely certain: only a small part of each spool can touch the paper and that portion must get damper than the rest, unless the spools are piled with mathematical accuracy, one layer and only one layer deep; some spools will touch the paper along their whole length and some will not.

In any case it is utterly impossible for all to receive the same treatment and it is from this cause that many claims arise.

However well a machine is managed, this defect must be always present. Carelessness is, of course, responsible for more obvious and more serious troubles. If the rollers are not used under sufficient pressure, the canvas will come through so wet as to drip onto the paper. Some water may trickle down the sides and all the spools adjacent to that side will be curled out of recognition.

#### SOME UNSATISFACTORY RESULTS.

The results of accidents are endless in their variety. In Botany coating yarns, the yarn which is most swollen will show as a denser place in the piece. If one whole bobbin is wetter than its next neighbor there will be a clear weft bar. If the outside of any one spool is wetter and more swelled than the inner layers, there will be irregularity resembling a water mark, and if the nose is wetter than the bottom of the bobbin the bar will show a graded shading.

When accidents occur with single yarns made from long wool, the yarn cockles and crimps so much that the pieces are curly and cockled to such an extent that one part of the selvage is much more drawn than that of the next few inches. But it is especially when yarn has been spun out so far that the curling point is almost reached that the worst fault of all takes place. It is very difficult to give a scientific explanation of the reasons, but it is very easy to see the extraordinary nature of the result. Some fibers shrink whilst others remain of their full length and these long fibers are thrown on to the surface in the form of perfect loops (see Fig. 5).

Often it happens that the shrinkage applies to only one or two fibers. The result is then of the worst, for every fiber that is not shrunk is thrown up into the loop which resembles that which is deliberately made in fancy loop yarns both in structure and appearance.

The conclusion to be drawn is obvious, but the way out of the difficulty is far from easy to find. Each count and quality of yarn should be conditioned to a standard that is peculiar to

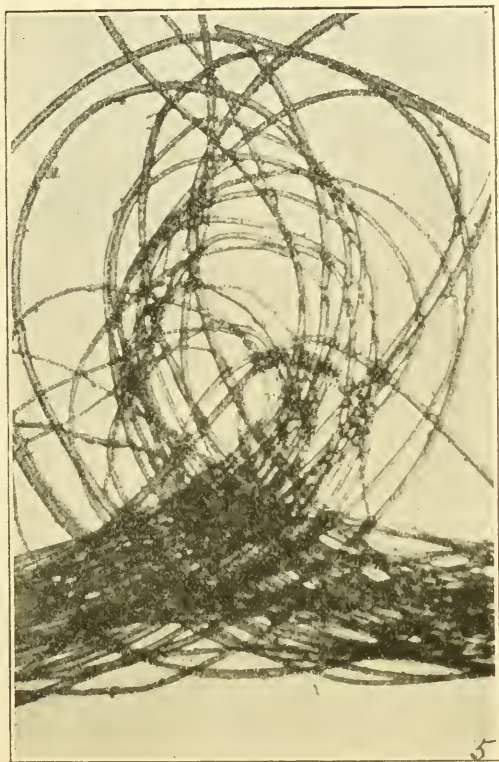


FIG. 5.

it and to it alone. The sale of unconditioned yarn seems to be impossible because each yarn requires and contains a different amount of moisture when it is in the best condition for weaving, and hence we are driven to the conclusion that the only feasible course at present is for each person who buys and sells yarn to know what suits his purpose best, and to buy or sell at prices which will enable him to do so with due regard to the cost of production.

HOWARD PRIESTMAN.

CHEAPSIDE CHAMBERS,  
BRADFORD, ENGLAND.

## Obituary.

### MR. THOMAS GOODALL (*with portrait*).

MR. THOMAS GOODALL, the venerable founder of the great Goodall manufacturing interests in the United States, died in his easy chair at his home on Main street, in Sanford, Me., Wednesday forenoon, May 11, 1910. He had gone to sleep, and passed quietly and painlessly out of life. On the first day of next September Mr. Goodall would have been eighty-seven years old. He had had symptoms of heart trouble occasionally in the past few years, but had remained notably alert and vigorous for a man of his age, and had enjoyed a long period of ease and happiness at his beautiful southern home in Daytona, Fla., and his northern residences at Sanford and Old Orchard.

Mr. Goodall was born in the famous old manufacturing district of Dewsbury, Yorkshire, England, in 1823, the youngest son of George and Tabitha Goodall. Both of his parents died before he was three years old, and his childhood was one of hard work and severe discipline. As a young lad he was "bound out," as the custom then was, to a woolen manufacturing establishment for an apprenticeship of eleven years. He was a strong, industrious, ambitious youth, and he thoroughly mastered his calling, so that when the manager became incapacitated young Mr. Goodall, at seventeen, was entrusted with the charge of the establishment, not only buying the wool and superintending its manufacture, but arranging for the disposal of the finished fabrics.

But there was small opportunity for advancement in the home town, and when young Goodall became of age he determined to seek his fortune elsewhere. On the last day of his apprenticeship he worked until ten o'clock at night, and then, with two shillings in his pocket and his simple belongings wrapped in a handkerchief, he walked ten miles across country to a place called Castle Hill. He often described this first day of his liberty as the happiest day of his life. The young man found occupation in the large manufacturing town of Huddersfield. There he embarked in the manufacture of floor rugs, utilizing as material the fringe yarns cut from shawls in the process of making. He bought these yarns and sold them to the hand loom weavers of the neighborhood. This yielded him a livelihood but little more, and in 1846 he determined to cross the ocean to America.

Mr. Goodall landed at New York without a dollar in his pocket, his little store of money having been stolen from him on the voyage. After a brief stay in Connecticut, he found employment in South Hadley, Mass., but gave up a good position to a fellow-countryman who had settled there with a large family of children. From South Hadley Mr. Goodall went to the busy manufacturing district of Rhode Island, where he remained for almost two years.

Then returning to South Hadley Mr. Goodall married Ruth, the second daughter of Jeremiah Waterhouse, a leading manufacturer, the ceremony taking place on April 29, 1849. Mrs. Goodall had been born in the town of Dudley, Mass., on April 10, 1826. Soon after his marriage, Mr. Goodall removed to West Winchester, N.H., in the Ashuelot Valley, where his first children, Louis Bertrand and George Benjamin (twins), were born, September 23, 1851. Mr. Goodall saw his way clear to engage in business on his own account, and not being able to secure a suitable building in Winchester, he removed, in 1852, to Troy, N.H., and there, in a small mill, began the manufacture of overcoatings and horse blankets.

One cold and windy day at his home in northern New England Mr. Goodall had observed a farmer endeavoring with difficulty to secure a blanket on the back of his horse, and he at once conceived the idea of improving the fit of horse blankets. It is believed that Mr. Goodall was the first man in the United States to make a blanket shaped to the body of a horse. He managed to survive the terrible panic of 1857 which ruined so many manufacturers. In that critical time Mr. Goodall could procure no ready money, but in order to support his operatives he continued to run his little mill, exchanging his goods for groceries and paying his help in these commodities.

"Many a night, after working in his mill until eleven or twelve o'clock, repairing his machinery and getting his mill in good condition for the next day's work," so it is related of Mr. Goodall in this period, "he would go home and by the light of a lantern work in his garden for another hour or more. The next morning would find him at his mill at least an hour before his help had arrived." The outbreak of the Civil War found Mr. Goodall with a large stock of cloths and blankets which were in immediate demand for the equipment of the great Federal armies. Thus his industry and perseverance were rewarded, and he was enabled to render an important service to the Government.



At Troy there were born one son, Ernest Montrose, on August 15, 1853; a daughter, Ida May, on August 15, 1858, and a daughter, Lela Helen, on January 23, 1864. Both of the daughters died in childhood. In the last year of the war, 1865, Mr. Goodall sold his factory at Troy to a syndicate of Keene capitalists, who have carried on the business ever since. Up to the date of the transfer Mr. Goodall was the only manufacturer of horse blankets in the United States.

After twenty years of incessant application to business Mr. Goodall now felt the need of rest, and went abroad with his family for a long vacation. But he could not remain inactive, and he busied himself in England in the exporting of lap-robcs largely manufactured there, for sale in the United States and Canada. This occupation brought him back to the United States, and he became convinced that under the American protective policy there was a great opportunity for the establishment of a plant for the production of the same kind of goods which he had been purchasing in England. He discovered the large profits which English manufacturers were making and the high prices which they were able to secure for their goods in the United States, where at that time they held a complete monopoly. In October, 1867, Mr. Goodall established himself in Sanford, Me., and began the manufacture of horse blankets, plush carriage robes, and cloakings. This business he carried on in association with the firm of L. C. Chase & Co. of Boston, which has been and is now the selling agent of the Sanford Mills. The business grew and prospered, and this and the other Goodall plants now employ three thousand operatives. Sanford fabrics furnish the plush for the upholstery of railroad cars throughout the United States.

The foreign manufacturers were not disposed to permit the development of another great industry in America. When Mr. Goodall had first made his preparations at Sanford, and had begun to manufacture robes and other fabrics, his European competitors sharply cut their prices in an effort to defeat him. They tried this again and again, but under the protection of the tariff Mr. Goodall was enabled to continue his work. He was content with a moderate rate of profit; that was a guiding principle of his business life. Moreover, he was a manufacturer and a business man of remarkable ability. Finally his foreign competitors realized that they could not crush him, and they abandoned the attempt. Mr. Goodall's success meant not only the creation of a

new manufacturing interest in the United States, but the permanent cheapening of an important class of fabrics to the American people. The foreign monopoly was broken, and the foreign high prices and excessive profits were a thing of the past.

An untiring worker, Mr. Goodall possessed an original, creative mind. He was constantly devising new and improved processes of manufacture. He was not afraid to make experiments and most of his experiments succeeded. He had the gratification of seeing his great enterprises established on a sound and enduring basis, and then he determined to give himself some relief from toil and responsibility. In 1877 Mr. Goodall retired in large part from active affairs, and transferred the direct management of the Goodall industries to his sons, experienced and capable men, who have creditably carried on and extended the great business which their father founded. Mr. Goodall continued to act as President of the Sanford Mills until May 11, 1883, when he resigned in favor of Ernest M. Goodall. Besides the Sanford mills, the Goodall Worsted Company, in the organization of which the sons took the leading part, has grown to an interest of magnitude, and the family has directed also the Holyoke Plush Company of Holyoke, Mass.

Mr. Goodall was the foremost citizen of Sanford, and was widely known and very highly regarded by manufacturers everywhere as a pioneer and originator of an important business. He was a Republican in political faith, and a close student of political affairs. He would have adorned high public office, but his ambitions did not run in that direction. He did consent, however, to serve as commissioner to the New Orleans Exposition by appointment from Governor Robie. Mr. Goodall was a kindly, public-spirited, generous man, and his benefactions will live long after him. His wife died on February 14, 1910. Of the three sons, Hon. Ernest M. Goodall is President of the Sanford Mills and President of the Holyoke Plush Company of Holyoke, Mass.; Colonel Louis B. Goodall is Treasurer of the Goodall Worsted Company and President of the Sanford National Bank, and George B. Goodall is the President of the Goodall Worsted Company and a director of the Holyoke Plush Company. These gentlemen are important factors in many business enterprises, and have a wide acquaintance and a large influence in Maine and among their fellow-manufacturers. They bear with honor a name distinguished in the industrial annals of the nation.

## Editorial and Industrial Miscellany.

### TALKING DOWN PROSPERITY.

#### RASH, FUTILE AGITATION RESPONSIBLE FOR ALL THE CURRENT DEPRESSION IN TRADE.

THERE is no denying that both in men's wear and in dress goods the season is proving a disappointment to manufacturers and to merchants and clothiers alike. Last year, after the tariff was virtually agreed on, was a year of remarkable prosperity, but a sinister change has come. Who or what is responsible for it?

The manifest answer is — Tariff agitation, and exaggeration of the high cost of living. These are the causes that have undermined confidence and blasted anticipations of continuous "good times," and the men who are responsible for this are enemies of their business associates and enemies of the entire industry. As was said in the Bulletin for September, 1909 :

The new tariff is not perfect in every detail any more than its predecessors were thus perfect. But in the main it is a fair and honest law, and the country is disposed to give it a long, fair, and honest trial. To agitate against it and to demand a reopening of the question is both futile and malignant. The question will not be reopened; the new law has come to stay. All that fault-finding can now accomplish is to reduce somewhat the natural buoyancy of present business and to disturb the splendid existing prosperity by some small development of unrest. The men who attempt this will face a sure and speedy condemnation by their fellow business men.

Some months ago there were some slight increases in the prices of certain fabrics. These increases were due directly and wholly to an advance in wool, which was due in turn to an increased demand consequent upon renewed business confidence. The new prices simply restored the rates that prevailed before the financial panic of 1907, but they were violently assailed as excessive and extortionate, and the American people, the purchasers of woollen cloths and clothing, were practically given to understand that they were going to be robbed by the manufacturers if they bought any new garments, and the ready-to-wear apparel of the people as a whole was stigmatized as poor, worth-

less stuff, unfit for use in our Northern climate and a deliberate invitation to disease and death.

The authors of these slanders have given them wide circulation in the newspapers and popular magazines of the United States, and they have unquestionably had some effect upon public opinion, though not perhaps just the effect for which their authors looked. A great many thousands of men and women and children who might have had and could afford to have new outfits of clothing have been persuaded by this agitation to postpone buying and to wear their last year's suits another year. It is this fact that is responsible for the disappointing, dull demand in the clothing and dress goods trade, confounding all the calculations of the clothiers and merchants and preventing them in turn from giving the expected orders to the manufacturers.

If goods are hard to sell and adequate prices difficult to secure, the clothiers, merchants, and manufacturers alike can lay the blame upon the men who, by agitation against the tariff and denunciation of "excessive" prices, have been dragging down the pillars of trade prosperity. It is unfortunately true that the woolen clothing industry is particularly vulnerable to such political attack. There has been a great deal of agitation about the high cost of food — more agitation than the actual prices warranted. This exaggeration has done much harm, but, after all, people must have bread and meat every day, and must have them even if they do regard the prices asked as unreasonable and extortionate. Daily food is an imperative necessity of daily living. It is true also that people must be clothed, but there is this vital difference — that a man can wear a last year's suit, a woman can wear a last year's dress, and be as warm and comfortable, though not so smartly attired, as in entirely new and fashionable garments.

The average man or the average woman, exercised by the newspapers and magazines over the higher cost of living, will economize by wearing last year's clothes, rather than give up any essential food, or even many an accustomed luxury. That is what has happened, and that is why such an unsatisfactory business is being experienced by clothiers, merchants, and manufacturers. Every man who has the interest of the industry at heart will himself refrain and do his best to induce all others to refrain from loud and futile anti-tariff talk, and from constant agitation and exaggeration of the high cost of living. It is possible to

fret one's self into a fever, and current conditions show that it is also possible, by fidgetting and scolding, to break down trade and scare away prosperity.

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## THE NEW INDUSTRIAL CHINA.

### A GREAT ADVANCE IN THE TEXTILE ARTS AS VIEWED BY A SHREWD OBSERVER.

THE industrial advance of China is strikingly described by Mr. Frank G. Carpenter, in a recent letter from Shanghai. The "yellow peril" is real enough as he pictures it, and it is significant that the Chinese, with their cheap labor and their genius for assimilating Western methods, are devoting themselves first of all to textile manufacturing. They are at work on cotton now, but it would be interesting to know what the result would be if they were to begin an extensive manufacture of wool, utilizing the native China supplies and the rags and other cheap materials of India and the rest of the East. Mr. Carpenter says:

Shanghai is preparing to manufacture for the new China. It is putting up factories and foundries, and starting all sorts of new industries. It has silk filatures which are producing bales of raw silk for our American weavers, modern flour mills equipped with Milwaukee machinery, and a cigarette factory owned by the American tobacco trust, which employs more than 1000 hands. It has eight great cotton mills with several hundred thousand spindles, and some which have 80,000 or 90,000 spindles in a single establishment. In these mills over 30,000 Chinese men, women, and children are employed, and they are spinning and weaving cotton quite as well as in any of our American factories. The most of them are managed by Chinese foremen, and they give some idea of how the Celestials expect to make their own cloth in the future.

I went through the establishment of the Soy Chee Cotton Spinning Company, on the Whampoa River, the branch of the Yangtse which gives Shanghai access to the sea. The buildings cover several acres. They are of gray brick shadowed by huge smokestacks.

### CHILD LABOR AND WAGES.

Over 1000 men, women, and children are employed. I went through room after room filled with girls who were weaving and spinning, and saw 200 children tending the machines. Some of them were little tots not higher than my waist. The children were pulling baskets filled with bobbins about the rooms. The



larger ones were tending the spinning machines. Their wages were about 4 of our cents per day, and the pay of the older hands ranged from that to 20 cents. The manager told me that he had many whole families employed in his factory — father, mother, and children all working, there being no law against child labor.

This factory works day and night, and there are quite as many children employed in the night shift as in the daytime. One thousand hands are always busy all the year through. Its chief product is cotton yarn for the domestic weavers. This is made up into bundles, which are then packed into bales of 400 pounds each and shipped all over the country. The yarn is woven into cloth on hand looms, and it supplies a large part of the clothing of the common people. I am told there are something like 300,000 spindles now working upon such yarn at Shanghai, and also a large number at Ningpo and Soochow. There is one big mill at Hangchow, one at Canton, and some at Hongkong, Wuchang, and Hankow. The labor is abundant and the people easily learn to handle the modern machinery.

The Chinese are rapidly introducing the better class of machines, and their mills are already about as well equipped as our own. A great part of their machinery is imported from England, and only certain specialties come from the United States. In one factory I found an American electric-light plant with 6000 electric lamps burning, and in another there were modern fire machines, and the employers had a fire drill every week. In nearly every place the wages were as low or lower than those I have quoted, the highest price paid the men being something like 30 cents per day, while a good average wage was 8 or 10 cents. I found girls at work in all of the factories, and I know of none which does not employ children.

#### VAST CONSUMPTION OF COTTON CLOTH.

Our cotton factories should send their agents here to study the market. These people dress in cotton instead of silk, and most of the cloth used is spun and reeled by hand and woven at home. With the new civilization wages will rise and the Chinese will wear more cotton than ever before. At present it is safe to say that there are at least 400,000,000 of them who dress in such goods all the year round. They wear only one or two thin garments in the summer, but in winter they have several suits well wadded to keep themselves warm, and in the northern provinces they put on suit after suit as the weather grows colder. Even at one suit of 20 yards to each person per year the amount of cotton used is so great that at least 8,000,000,000 yards are required. This amount is beyond comprehension. It would carpet a pathway 60 feet wide from the earth to the moon, or cover one more than 20 miles wide from New York to Chicago. Our total shipment of cotton goods to other countries is less than \$33,000,000

a year, and all we send to Asia sells for less than \$13,000,000. That which goes to China would hardly patch the knees of the Celestials, let alone make their clothes.

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### REVISION DOWNWARD IN FACT.

ACTUAL results under the new Aldrich-Payne tariff all go to emphasize its character as in the main a reasonable, moderate, effective measure of protection. It has not "prohibited" imports. On the contrary, because the reductions of duty were more general and decisive than the relatively few increases, the influx of foreign goods is greater than it was before.

On March 31, 1910, the new law had been almost eight months in operation, and there had been increased importations, as compared with the corresponding eight months of the previous year, of 33 per cent in manufacturers' materials, of 26 per cent in finished manufactured goods, and of 3 per cent in foodstuffs. The large increase in manufacturers' materials reflects a fair activity in general manufacturing, and the increase in imports of finished manufactured articles all ready for consumption points to the widespread prosperity that followed immediately upon the enactment of the new tariff — an improvement which does not seem now to be entirely sustained. The value of crude materials for use in manufacturing imported in the period August 1, 1909, to March 31, 1910, amounted to \$401,000,000, against \$298,000,000 in the same months of the preceding year; manufactures for further use in manufacturing, \$195,000,000, against \$49,000,000 last year; manufactures ready for consumption, \$252,000,000 against \$200,000,000 last year, and foodstuffs of both groups, \$215,000,000, against \$208,000,000 last year.

Under the so-called "prohibitive" Schedule K, our imports of wool manufactures increased in the eight months to \$16,500,000 (foreign valuation) as against \$12,000,000 in the preceding year. This means real and keen competition in the higher grades of fabrics, where no reduction in the tariff could be made without serious injury to American industry and a loss to the national revenue. These imports, if continued in the same volume, would amount to about \$24,000,000 for the entire twelve months, equivalent on a duty-paid basis to about \$45,000,000 of American merchandise. There is illumination here for some hasty critics

of Schedule K, who insist that the present rates are unnecessary and extortionate. Forty-five million dollars worth of woolen fabrics, if produced in America instead of in Europe, would involve full employment for the machinery of many mills, and work and wages for thousands of additional American operatives.

Another schedule objected to as too high — the cotton schedule — has not prevented an increase from \$43,500,000 to \$47,000,000 in the imports (foreign valuation) of manufactured cotton goods of various kinds. There has been a gain in the imports of leather and manufactures of leather in spite of free hides, from \$9,500,000 to \$12,000,000, and in the imports of manufactures of silk, from \$22,000,000 to \$23,500,000.

These are all highly competitive articles, and the official records of the Government vindicate the declaration of the authors of the Aldrich-Payne law that on the whole that measure would be found to represent "revision downward" — not a radical reduction, but a cautious, actual one. These statistics of our imports in the first eight months afford a good, fair measure of the real nature of the new legislation.

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### THE DUTY ON CLASS I. WOOLS.<sup>1</sup>

IN recent issues of the "Textile Manufacturers Journal" there have appeared interesting letters, bearing on certain aspects of Schedule K, from Mr. Charles H. Harding, Vice-President and Treasurer of the Erben-Harding Company of Philadelphia, Pa., and Mr. Robert Bleakie, President of the Robert Bleakie Company of Hyde Park, Mass. :

LETTER OF MR. HARDING

PHILADELPHIA, April 14, 1910.

The appearance of a letter from the National Association of Clothiers to candidates for Congress in Rochester, N.Y., in which is repeated the misstatement concerning the alleged discrimination in the tariff on wool, furnishes the reason for addressing you. These gentlemen, naturally ignorant as to the facts, have adopted without question the statements so industriously circulated by the carded yarn men's association, and taken as gospel by a small group of Senators and a larger number of "insurgents" in the House, whose constituents who grow wool are now 'paying through the nose,' as the English say, for the situation thus brought about in the trade, that will cost the producer of

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<sup>1</sup> For letters from wool dealers approving Mr. Harding's statements, see page 201.

wool something serious as his fleeces come to market. If the "carded yarn" body represented a majority of their kind (it is said they stand for 10 per cent of the carded yarn machinery), or included the more important concerns, or could show that their assertions are founded on their past experience as importers of wool, one would wonder less at the confidence with which their statements have been swallowed. Or, if they had imported and used any quantity of the wools they now cry for, when wool was free, and were now suffering their alleged privations from the specific duty, because their importing had thereby been stopped, the case might be clearer. But frequent efforts on the part of myself and others to get at such facts, including the opportunity given them at the special hearing arranged for them on February 16, 1909, by the Ways and Means Committee, have been absolutely without success. Their plan has been to show samples of combing wools (from clips "light in grease"), asserting that the worsted mills got these, and other samples of clothing wools (from clips "heavy in grease"), claiming they want such wools and cannot get them. As lately as the first week of this month one of their chief spokesmen claimed at a hearing in Boston that this is the fundamental trouble with the woolen schedule, and the clothiers are now standing sponsor for the untruth that there is such a discrimination in the application of a specific duty on wool. It is a well known fact that this is the last of civilized countries to abandon ad valorem duties; and it can easily be shown that the application of them to raw wool with equity and certainty is impossible. But the present discussion is only on the falsehood of the charge of discrimination by means of a specific duty, amounting, the complainants claim, to prohibition in their particular case. Every person familiar with wools knows well that the difference between being "light in grease" and "heavy in grease" is between one "clip" (produce of a flock) and another, rather than between parts of the same clip — if all in the unwashed condition; so that if the worsted mill can find a high yielding part of a clip for importation, there will be clothing wool in the same clip that the carded yarn mill may import, if it can be gotten away from the French, German, and English, by the price the American is willing to pay; and if the specific duty falls so severely on the heavy wools the complainants sigh for, it will fall heavily on the combing as well as on the clothing wool of a clip. The importation of clothing wools "light in grease" is, and always has been, as much a matter of course, in the observation of people in the importing business, as is the importation of combing (worsted) wools, from the same clips, provided fashion called for the former as well as the latter. Here is a clipping from a catalogue from a London sale showing the offer of five lots of combing wool from the "Coree" clip followed by five lots of clothing (carding) wool from the same:

Tare, 12 lbs. Mark — Coree.

	Lot.	Bales.
In grease super combing, H .....	48	23
“ “ “ “ E .....	49	5
“ “ 1st combing, H .....	50	48
“ “ “ “ E .....	51	18
“ “ 2d “ H .....	52	17
“ super clothing, H .....	53	19
“ “ “ E .....	54	9
“ 1st “ H .....	55	44
“ “ “ E .....	56	22
“ 2d “ H .....	57	16

Here is another, showing the offering of six lots (814 to 819) of combing wool from a Sydney clip, with four lots (820 to 823) following of clothing wool, with the prices in pence, paid for each; and these prices show conclusively to one familiar with the business, that the shrinkage on the combing and clothing wools was about the same, as is to be expected, in the same clip:

Ex Poseidon &amp; Pericles, Sydney.

Tare, 12 lbs. Mark — B (Northern).

	Lot.	Bales.
Greasy 1st combing, Hoggetts .....	814	43 8½d.
“ 1st “ “ .....	815	29 8½d.
“ 1st “ “ .....	816	31 8½d.
“ 2d “ “ .....	817	7 9d.
“ 2d “ “ .....	818	72 8½d.
“ 2d “ “ .....	819	28 8d.
“ 1st Hoggetts .....	820	5 9d.
“ 1st “ .....	821	66 8d.
“ 1st “ .....	822	47 8d.
“ 1st “ .....	823	30 7½d.

And as the “cost of the clean pound” is the universal basis of calculation for the use of wool in goods, these prices, coupled with the natural fact that the yield in scoured pounds of any quantity lots 820 to 823 would be about the same as that of the same quantity of lots 814 to 819, give absolute proof that the user of the “clothing” (called 1st Hoggetts here) got his “scoured pound” on the same basis about as the consumer of the combing (called “cbg. Hoggetts”) — that is, there was little or no difference in price paid by the carded yarn mill and the worsted mill; if there were any difference the clothing wool cost when scoured a little less, as is the rule, and has been always.

It may be well for all concerned in this scheme of misrepresentation to show that they know whereof they speak, and have experience to warrant their statements, or to confess their mistake with the same frankness and diligence they have spent in its propagation. Meantime many of them are putting out rough goods made from high class carpet wools (duty 7 cents instead of 11 cents) to fill the demand for cheap goods. And the carpet men who pleaded before Congress for lower duties or no duties



on carpet wool, on the ground that Class 3 wools were only fit for carpet purposes, are finding their wool prices on the better kinds unduly forced upon them; to be sure, they may get some comfort by wearing the clothing made from wools that formerly were usually offered for consumption in carpet mills only.

The charge that Schedule K is the result of successive "conspiracies" between the wool grower and the worsted manufacturer rests on no better foundation. The principles embodied in all its forms since 1865 were enunciated and formulated at a joint meeting in that year of the growers and manufacturers of wool, mainly representatives from the National Association of Wool Growers and the National Association of Wool Manufacturers. Now, as there was no manufacturing in this country of worsted cloths for men's wear till 8 years later, and as the president of the Manufacturers' Association in 1865 was a carded yarn man, and as in the 35 years after, the president was for 22 years some carded yarn man and for 13 years only some worsted man, and as the office was filled by carded yarn men in all the time when the Morrison bill, the Mills bill, the McKinley, Wilson and Dingley tariffs were under discussion, the charge of "conspiracies" in the meantime between the wool grower and the worsted manufacturer seems to be a fabrication.

Few who understand it think Schedule K perfect; many see where advantageous changes may be made in the direction of the precision of the cotton schedule; but until the complainants come forward with distinct propositions to take the place of its thirty-six paragraphs, it must stand as an evolution of nearly half a century, the best arrangement for wool grower, manufacturer, consumer and the treasury that has yet been proposed; and the time now has come probably for some cessation of criticism founded on falsehood, and for the presentation of a "ready-made, ready-to-wear" substitute that will do better in these four respects.

CHARLES H. HARDING,

*Vice-President and Treasurer Erben-Harding Company.*

#### MR. BLEAKIE'S REPLY.

BOSTON, MASS., April 19, 1910.

#### *Editor* TEXTILE MANUFACTURERS JOURNAL:

A public letter from Charles H. Harding, a worsted spinner of Philadelphia, attacking the carded woolen manufacturers for their position on the wool tariff questions calls for a reply. The unfair Payne duty on grease wool can be defended only by unfair arguments and illustrations. Mr. Harding demonstrates this by selecting for his illustrations one of the lightest shrinking clips from the State producing the lightest shrinking wool in Australia, and triumphantly points to the clothing wool from that clip as

proof that light shrinking wool for carded woolen goods can be found.

It is doubtful if he could find enough of such wool to supply a ten-set mill. But I appeal from Philip drunk to Philip sober. In 1910, Mr. Harding is engaged in the desperate task of defending the indefensible wool tariff against popular assaults. Twelve years ago, in 1898, he delivered a lecture on the "Selection and Grading of Fine Wools" before the Warp and Weft Club of the Philadelphia Textile School, in which he stated with scientific precision that feature of the present wool tariff against which the carded woolen manufacturers now protest. Mr. Harding said on that occasion :

"One thing to be noticed about the selection of these fine foreign wools is this: The imposition of any specific duty of any size on fine foreign wools always establishes a practical limit for the shrinkage of imported wool, and the experience of this country has been under its late wool duties that there is never imported any considerable quantity of fine wool that shrinks over 60 per cent. This is the practical limit for the possible importation of fine foreign wools; and there are very few people indeed who will import much that shrinks over 56 per cent; for the moment it goes above 56 per cent, as you can see by a little figuring, the burden of the duty at so many cents per pound begins to fall very heavily on the resulting quantity of scoured wool. When you import a hundred pounds of fine greasy wool and get out of it only 40 pounds of clean wool, the 11 cents a pound becomes a very serious question, and fine wools that are heavier are rarely imported at all."

And the man who said that in 1898 now has the effrontery to make this charge of falsehood against the carded woolen manufacturers :

"But the present discussion is only on the falsehood of the charge of discrimination by means of a specific duty, amounting, the complainants claim, to prohibition in their particular case."

I desire to avoid acrimony and therefore content myself with placing Mr. Harding's statements of 1898 and 1910 side by side.

The carded woolen manufacturers base their demand on the truth so clearly stated by Charles H. Harding in 1898, and which they are prepared to demonstrate by an overwhelming mass of evidence in 1910. Mr. Harding says :

"If they (the carded woolen manufacturers) had imported and used any quantity of the wools they now cry for, when wool was free, and were now suffering their alleged privations from the specific duty, because their importing had thereby been stopped, the case might be clearer."

If Mr. Harding will turn to the catalogue of the last London sales he will find one of the largest clips of Adelaide wool labeled "Beltana." This clip was imported into the United States for carded woolen goods when wool was free and it is now excluded

because that wool shrinks 60 per cent and above. Can Mr. Harding explain why the carded woolen manufacturers should be deprived of this wool by a duty of  $27\frac{1}{2}$  cents per scoured pound, while he and his worsted associates are allowed to import Australian and South American crossbred combing wools shrinking 30 per cent at a duty of only  $15\frac{1}{4}$  cents? We are citizens of one country, pay taxes to one government. Why should he enjoy this special privilege? Why should we suffer this discrimination?

If Mr. Harding had been bent upon showing up the Payne tariff by illustrations from the London sales he would not have neglected Cape wool. This is a class of wool that shrinks from 60 to 80 per cent and, for the reason so clearly stated by Mr. Harding before the Warp and Weft Club in 1898, substantially all of it is excluded from the United States. At the first series of London sales this year there were 2742 bales (about 1,000,000 pounds) of Cape wool sold. Let us examine this wool and apply the Payne duty to it:

## GREASE.

	Price, cts.	Duty, cts.	Per cent.
1 bale .....	23	11	48
8 bales.....	21	11	52
14 " .....	20	11	55
21 " .....	19	11	58
25 " .....	18	11	61
12 " .....	17	11	65
13 " .....	16	11	69
5 " .....	$15\frac{1}{2}$	11	71
21 " .....	15	11	73
36 " .....	$14\frac{1}{2}$	11	76
51 " .....	14	11	79
2 " .....	13	11	85
3 " .....	$11\frac{1}{2}$	11	96
2 " .....	11	11	100
1 bale .....	9	11	122
1 " .....	$7\frac{1}{2}$	11	147

## GREASE BELLIES.

17 bales.....	17	22	129
9 " .....	16	22	138
10 " .....	19	22	116
3 " .....	18	22	122
14 " .....	$15\frac{1}{2}$	22	142
10 " .....	15	22	147
16 " .....	14	22	157
2 " .....	$13\frac{1}{2}$	22	163
2 " .....	13	22	169
1 bale .....	12	22	183

## GREASE BLACK MIX.

1 bale .....	16	11	69
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## GREASE BREECH.

1 bale .....	14	22	157
3 bales.....	12	22	183
1 bale .....	10	22	220

## GREASE CLOTHING.

	Price, cts.	Duty, cts.	Per cent.
2 bales.....	16	11	69

## GREASE COMBING.

1 bale .....	27	11	41
25 bales.....	25	11	44
101 " .....	23	11	48
437 " .....	22	11	50
574 " .....	21	11	52
412 " .....	20	11	55
153 " .....	19	11	58
134 " .....	18	11	61
92 " .....	17	11	65
21 " .....	16	11	69
37 " .....	12½	11	88

## GREASE LAMBS.

17 bales.....	22	11	50
81 " .....	21	11	52
15 " .....	20	11	55
16 " .....	19	11	58
51 " .....	18	11	61
60 " .....	17	11	65
20 " .....	16	11	69
2 " .....	15½	11	71
6 " .....	15	11	73

## GREASE LOCKS AND PIECES.

3 bales.....	18	22	122
13 " .....	17	22	129
2 " .....	15	22	147
8 " .....	13½	22	163
3 " .....	13	22	169
5 " .....	12½	22	176
14 " .....	12	22	183
58 " .....	10	22	220
2 " .....	9½	22	231
12 " .....	9	22	244
14 " .....	11½	22	191
33 " .....	11	22	200
12 " .....	10½	22	209

These are illuminating figures. With the lowest duties on the strictly combing wool, we find the ad valorem rates ranging from 41 to 244 per cent. Based on the scoured weight these duties vary from 27½ cents to \$1.10 per pound.

Such rates on raw material cannot be justified. The only people who want them maintained are the comparatively few worsted spinners in the United States, who can supply their wants from the light shrinking wools of Australasia and South America at ad valorem rates of 25 to 40 per cent. Mr. Harding says:

"It can easily be shown that the application of ad valorem duties to raw wool with equity and certainty is impossible."

From this declaration by Mr. Harding in 1910 I turn to this

statement by the same man in 1909 before the Committee on Ways and Means:

"If the importer was dishonest and resorted to tricks of any sort, I am prepared to affirm that he could get out of the goods,  $1\frac{1}{2}$ , 2,  $2\frac{1}{2}$  and sometimes 3 per cent on his importation from the failure of the effort to fix the value of the shipment of wool at the time and place when and where it was shipped, even though it was sold at auction."

Mr. Harding defends a specific tariff on wool under which the duty, as shown by the statement already given, varies 203 per cent, and opposes an ad valorem tariff on wool on the ground that a variation of 3 per cent might be caused by undervaluations. Can inconsistency go farther?

Mr. Harding's assertion that the application of ad valorem duties to raw wool is impossible is refuted not only by his own testimony, but also by the National Association of Wool Manufacturers. In 1897 S. N. D. North, secretary of that organization, appeared before the Ways and Means Committee and the following is an extract from his testimony:

Mr. NORTH. — "I have been instructed by the executive committee of the National Association of Wool Manufacturers to appear before the committee to state the views which the members of that organization entertain with regard to a revision of the tariff, and the principle which they think ought to govern in the adjustment of the wool and woollen schedule. . . .

"The wool duty may be equivalent to 50 per cent ad valorem, or it may mount up to 150 per cent, according to the shrinkage. It is so assessed that there is absolutely no relationship between the duty and the value. It is a duty compelling the American purchaser of foreign wool to pay a tax upon every pound of dirt and grease which it contains in the greasy state." . . .

The CHAIRMAN (Mr. Dingley). — "Your point is this: That clothing wool varying in value abroad, say from 8 to 20 cents, if one round duty of 10 cents per pound is imposed, that will make the duty 50 per cent ad valorem on the 20-cent wool and make the duty on the 8-cent wool 125 per cent. That is your point?"

Mr. NORTH. — "That is the point exactly."

Mr. TURNER. — "Would you not say the remedy for this inequality would be the ad valorem rates, as Mr. Moses suggests?"

Mr. NORTH. — "There is no doubt that an ad valorem rate would remedy them, sir."

The CHAIRMAN. — "How would it affect the question of undervaluation if it should be imposed?"

Mr. NORTH. — "An ad valorem rate of duty on wool?"

The CHAIRMAN. — "Yes, sir."

Mr. TURNER. — "There is no great difficulty about classifying wool?"



MR. NORTH. — "I do not believe there is a commodity sold in the world of any description, the market value of which is more accurately, publicly and universally known as that of wool. It is like cotton, wheat, and other staple products in that respect. All the wools of the world practically which reach the public market are sold at auction."

Mr. Harding cites the fact that carded woolen manufacturers are using carpet wools for making their goods. Would he deprive us even of this poor privilege? Does he not recognize that the forcing of carded woolen manufacturers to use carpet wool is a most striking illustration of the necessity of equalizing the tariff on wool?

Mr. Harding, without taking the precaution to state whom or what he represents, sneers at what rumor tells him is the comparatively small number of or comparatively small quantity of machinery operated by these carded woolen manufacturers who now appeal for justice. During the past year we have grown accustomed to that line of attack. When nearly all the independent carded woolen mills of Maine were appealing to Congress for relief in March, 1909, we were told that one corporation that opposed us operated more looms than all of us combined. This question is not to be settled by the weight of capital or machinery arrayed for or against a revision of Schedule K. It will not be settled until it is settled right. The reason why the carded woolen manufacturers have won the support of the President, of Senators, Representatives, clothiers, and the public is to be found in the fact that our appeal is for justice to all.

ROBERT BLEAKIE, *Director,*

Carded Woolen Mfrs. Ass'n.

#### MR. HARDING'S REJOINDER.

PHILADELPHIA, April 21, 1910.

Without notice of the offensive personalities in the letter to you from Mr. Bleakie, copy of which I have just received, let me dispose of the only two points he makes and preface by again stating what has always and everywhere been admitted by myself and all others of experience in buying Australian and other fine foreign wools — that is, that any specific duty will at some point make the importation of very heavy wools impossible. But this applies, as has been shown, equally to the combing and clothing wools of the same clip — and that covers his first point, and it is the hiding of this fact that has made the statements of the carded yarn men so misleading.

The users of the fine clothing wool the carded men ask for are absolutely on the same footing before the law as the users of the fine combing wool from the same clips, and where the clothing from a heavy clip is subject to limitation from the incidence of the specific duty the same is true of the combing of the same

clip. Again I insist that the "discrimination" outcry is baseless and misleading.

His other point is that not enough clothing wool from light clips "can be found to run a 10-set mill." Nothing could more completely expose absolute ignorance of the facts. Let testimony be asked from the importers of Boston and New York on this point and not from people who are evidently without experience of importance.

As to the possibility of collecting fairly the "ad valorem" duty on greasy wools, the remarks of Mr. Payne and Mr. Champ Clark at the special hearing of February 16, 1909, on the testimony offered make the strongest possible comment. Said the latter: "That is a very persuasive argument against the ad valorem duty," and Mr. Payne said, "An ad valorem duty on wool is a very beautiful thing till you start to collect it."

And before the President is further quoted as supporting this ingenious misrepresentation, let some one take the pains to see him again. Meanwhile, let our friends apply the stale trick of turning specific duties into shocking "ad valorem" equivalents, to the duties protecting the shoddy and substitutes in the cloths now preparing for the consumption of the American people, under the guise of cheaper goods for the masses.

"The Textile World Record," whose editor spent two evenings with Senator Dolliver preparing the "Carded Yarn" case for his speech in the Senate, had this to say in the February number:

"Although the carded woolen mills have been favored by a general demand for their product, they have encountered obstacles different in character, but no less serious than those found in the worsted trade. The difficulties with the carded woolen trade have been a scarcity of the right kinds of raw material and an insistent demand for goods at low prices. The result has been an adulteration of fabrics hitherto unknown, in which every consideration has been sacrificed to those of cheapness. A comparatively small number of carded woolen mills have kept their products at a high standard, but the great majority have naturally yielded to a situation in which high grade raw material was scarce and expensive on the one hand, while the demand for low priced goods was overwhelming on the other. The evidence of this two-fold difficulty is supplied by the fabrics now being offered."

And now, further, let us consider three of the less important statements:

1. "The illustration 'Coree' is from the lightest shrinking clips of Australia." But this must be done, as the contention is on the light shrinking wool only. If this were my only exhibit, it still proves my point, that the clothing and combined lots of any clip are equally open for importation for the cards and the combs of this country. But the other example (lots 814-823) show, in the prices paid (9d. down to 7½d.), to one familiar with the business,

that this clip belonged to the heavy class. As a matter of fact, I valued these lots, in company with our London buyer, and bid on most of them, and lost them to "France." Any carded yarn man might have done the same thing with the clothing parcels in the string; his chances would have been the same as mine.

2. Cape wool—"Substantially all of it is excluded from the United States." To this it may be answered that within a year we have bought Cape wools both in New York and in London, and were offered some from New York this week; they are still lying there unless taken up for some one's French combs, or possibly by a carded yarn manufacturer.

3. "The dishonest importer could get," under the proposed ad valorem duty, "1 to 3 per cent out of the goods illegally." What I said was, "1,  $1\frac{1}{2}$ , 2,  $2\frac{1}{2}$ , sometimes 3 cents a pound." The writer may have been quoting the report of my testimony as the stenographer gave it. But it is not easy to see how any calculation could give the results stated, "1,  $1\frac{1}{2}$ , 2,  $2\frac{1}{2}$ , sometimes 3 per cent." The proposed ad valorem rate under discussion was 50 per cent, and my point was that each successful undervaluation of 1 penny per pound (2 cents) would give the successful evader of the law 1 cent per pound out of the United States Treasury, and each added halfpenny would swell his fraudulent profit to the figures named, not in per cent, but in cents per pound.

Persons familiar with the facts and the customs of the trade, would be likely to discover the absurdity of the stenographer's report; any one knowing but little more about the matter than did the reporter might quote his figures without discovering his error.

It still remains true that the importation of wools is equally open to the men who use worsted wools and carding wools, from these sections producing the fine wools, in which carded yarn men claim there is deadly discrimination. And it is equally true that if the ad valorem rate on wool were anything like 50 per cent there is no way of preventing such wholesale undervaluation, as would put importation of wool out of the hands of honest men.

Yours very truly,

C. H. HARDING.

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#### VICE-PRESIDENT SHERMAN ON THE TARIFF.

It is recognized by the leaders of the Administration party that the tariff is sure to figure largely in the approaching Congressional campaign. The strong protectionist champions are manifesting good, practical generalship in beginning early their work of education, instead of waiting for the last hurried and

excited fortnight of October. A group of important public men from Washington addressed recently the Citizens' Industrial Association of St. Louis. Vice-President Sherman was the chief speaker on that occasion, and he said :

I am one of those old-fashioned protectionists who believe in American wages and the American standard of living, and that the way to maintain these is by doing our own work. Such faith, however, does not preclude the occasional revision of our tariff and the changing of duties, either up or down, to meet changed conditions in our industrial and commercial transactions.

But my faith does include the judgment that such changes should be made by the friends and not by the enemies of protection. This was our creed and our promise to the people in the last national campaign, and I believe that the pledge was fulfilled and that the tariff was revised substantially and successfully.

No previous tariff law was more carefully prepared or more exhaustively considered than the law which went into effect last August. It was not satisfactory to all. No tariff law ever was or ever will be ; but it was the best law we could get, and its basic principle is protection.

It has now been in operation over nine months, and we can study the results and determine whether it is a successful and beneficial measure.

#### AS A REVENUE PRODUCER.

First, from a revenue standpoint no question of its success exists. During the fiscal year to date our receipts have been over \$50,000,000 more than during the corresponding months of last year. A year ago now our deficit, that is the excess of ordinary expenditures over ordinary receipts, was \$70,000,000 ; now it is only about \$15,000,000, and it seems safe to assume that that deficit will be small, if not entirely wiped out, by the end of the fiscal year.

In fact, in this particular the framers of the Payne law builded even better than they expected, as no one predicted that the new law would give a surplus during its first year. It is true that expenditures are a little less than last year, but the gain to the Treasury is largely due to the new tariff.

Mr. Sherman pointed out that the return to the full volume of employment had been pronounced. It was not questioned, he said, that all artisans and mechanics were busy and that, with few exceptions, all workingmen were well employed on full time and at the highest wages in the country's history. He continued :

Hardly a day passes that we do not note the increase of wages granted by some railroad or some industrial enterprise, and it is estimated that the advance in wages which will be granted this



year will equal the stupendous sum of \$500,000,000. While this splendid result has come to the wage earners, and it is a fair assumption that it must have come first to the employing classes, it has also come in equal measure to our farmers.

In fact, one of the reasons for the decrease in exports of food-stuffs is because the farmers can market almost their entire output at home and at the highest prices ever received by them.

So it seems that sufficient revenue is derived from the new law; we have full employment for all our people and the greatest reward for labor, whether on the farm or in the factory or on the railroads, ever known in our history; and that means from 50 to 100 per cent more than the reward of labor in other lands. The universal desire is that such conditions will continue. Surely, then, we ought to give such a tariff law a fair trial.

#### EFFECT ON INDUSTRIES.

While, however, we may be content to await further developments of the law, it is proper and consistent to note what effect it is having and may continue to have on our industries. To-day all seems well, but we must have thought of the morrow and should note carefully the results from day to day, that we may be prepared to act wisely and well when the time comes again, as it will come, for another revision. Some duties may still be too high; some may need no change, and some, it may be thought, should be increased, if we are to continue to do our own work and maintain our present volume of employment and high standard of wages and living.

Our imports during the first eight months of the present fiscal year exceeded those of the corresponding months of the last year by over \$200,000,000, or at the rate of over \$300,000,000 a year. The increase in the imports of foodstuffs is immaterial, almost the whole increase being in manufactures and material for use in manufacturing, nine-tenths of which could undoubtedly have been made in this country.

To that extent, then, American production has been displaced and at least \$250,000,000 of American wages paid to foreign laborers.

There are two significant features of this present state of our foreign commerce. In the first place, it is necessary that our exports should exceed our imports by some \$350,000,000 annually in order to make good our foreign obligations and prevent the export of gold.

#### DISPLACEMENT OF PRODUCTION.

And the second, and to me the more important, feature of this great increase in our imports in manufactured and partly manufactured goods is the displacement of American production.

I will not assert that up to the present time it has injured any American industry. With the increased volume of employment



that has come with the new tariff law and the great increase in wages and consequent purchasing power has come an ability to absorb these imports in addition to the absorption of domestic production.

So long as this condition of affairs continues, and because this increased importation gives the necessary revenue to meet the expenses of the Government, we may sound no cry of alarm. But I do call attention to this fact for the one purpose of asking if it would not be well to examine closely into the matter of increased importation and to consider whether, when we again revise the tariff, it will not be necessary to check a sentiment for further downward revision, and perhaps instead resort to a revision upward in some schedules.

No danger need be feared, said the speaker, of enacting a tariff law which would be prohibitive. As long as we provide a large volume of employment and prevalent high wages for our people, he said, so long will the accruing prosperity enable us to buy abroad such a quantity of luxuries, and to some extent the necessities, as will continue to net a revenue to meet our expenditures. He said in conclusion:

Because I believe we should make at home nearly everything we can, instead of buying it abroad, I again emphasize the fact that, while I do not advocate an immediate revision of the tariff and do not advocate necessarily, when that revision is made, that it shall again be upward in every essential, yet I do wish to put myself on record here as insisting that it is the duty of the business men of this country to scan closely the increasing imports and see, if they continue, whether it would not be wise to protect a little better our own labor and industries instead of sending abroad our gold to pay cheap labor in foreign countries.

If we do not anticipate and prepare, if we open the custom gates too far, then we shall invite and have an avalanche of foreign goods that will close our mills and drive our laborers to idleness. Then will wages and prices fall, and, compared to the consequent calamity and disaster that will follow, the depression of 1893-96 will be as a summer shower compared with an equinoctial storm.

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## THE WORLD'S COTTON SPINDLES.

### CONSUMPTION AND STOCKS OF THE PRINCIPAL MANUFACTURING NATIONS.

COMPARATIVE figures of very great interest to textile manufacturers of the United States appear in the "Textile Recorder" of Manchester, England — the half yearly statistics of the International Federation of Master Cotton Spinners' and Manufacturers' Associations:

## COTTON SPINNING SPINDLES, 1ST MARCH, 1910.

*(Spinners' Returns.)*

COUNTRIES.	Mule Spindles in Work.	Ring Spindles in Work.	Spindles Spin- ning Egyptian Cotton.	Spindles Spin- ning American, East Indian, and Sundry Cottons.	Spindles in Course of Construction.	Total Number of Spindles as per Returns in Work at Present.	Total World. Estimated Num- ber of Spinning Spindles in Work.
Great Britain .....	40,760,322	8,057,912	14,258,104	34,560,130	1,169,116	48,818,234	53,729,982
Germany .....	5,345,867	4,545,583	1,293,060	8,598,390	442,220	9,891,450	10,058,370
France .....	3,915,372	2,700,131	1,116,386	5,499,117	135,758	6,615,503	7,033,187
Russia * .....	2,515,246	3,346,215	643,780	5,217,681	47,551	5,861,461	8,200,000
India .....	888,676	2,407,682	14,395	3,281,963	203,732	3,296,358	6,053,231
Austria .....	2,505,590	1,797,456	578,770	3,724,276	126,882	4,303,046	4,557,137
Italy .....	921,585	2,903,192	179,436	3,645,341	52,536	3,824,777	4,150,000
Spain .....	602,000	1,100,000	100,000	1,402,000	None.	1,702,000	1,900,000
Japan .....	34,582	1,676,184	223,984	1,486,782	34,388	1,710,766	1,954,880
Switzerland .....	1,082,648	226,784	744,874	564,558	None.	1,309,432	1,496,698
Belgium .....	766,842	545,938	3,400	1,309,380	18,420	1,312,780	1,312,780
Portugal † .....	126,005	252,011	None.	378,016	3,000	378,016	475,696
Holland .....	190,040	230,938	None.	420,978	None.	420,978	420,978
Sweden .....	111,880	299,613	14,384	397,109	992	411,493	470,000
Norway .....	21,748	53,380	None.	75,128	None.	75,128	75,128
Denmark .....	11,376	59,332	None.	70,708	None.	70,708	77,644
U.S. America † .....	5,000,000	23,000,000	Not stated.	28,000,000	Not stated.	28,000,000	28,000,000
Canada .....	290,883	298,517	None.	589,400	None.	589,400	855,293
Brazil, Mexico and other Countries .....	5,144	557,737	None.	562,881	46,328	562,881	2,600,000
<b>Total .....</b>	<b>65,095,806</b>	<b>54,058,605</b>	<b>19,170,573</b>	<b>99,983,838</b>	<b>2,280,923</b>	<b>110,154,411</b>	<b>133,421,004</b>

\* Including 276,838 mule spindles, and 463,984 ring spindles of Russian Poland.

† Approximately.

MILL STOCKS AND CONSUMPTION OF ALL KINDS OF COTTON ON THE BASIS OF SPINNERS' RETURNS,  
CALCULATED PER 1000 SPINDLES.

COUNTRIES.	Mill Stocks (Actual Bales) 1st March.					Consumption (Actual Bales) for Year ending 31st August.			
	1910.	1909.	1908.	1907.	1906.	1909.	1908.	1907.	1906.
Great Britain .....	8.50	9.72	10.94	13.58	12.13	65.82	72.74	80.24	80.18
Germany .....	34.51	40.86	49.14	41.96	34.10	173.64	181.45	180.72	182.97
France ....	28.58	29.95	34.45	35.02	23.13	139.09	141.17	139.85	139.02
Russia .....	85.41	76.88	67.60	55.74	.....	236.56	250.07	233.42	.....
India .....	70.13	94.75	96.86	.....	.....	387.29	339.26	.....	.....
Austria .....	39.25	48.84	73.15	65.60	44.88	184.45	183.77	196.68	190.79
Italy .....	43.42	55.10	76.52	71.90	76.69	235.38	245.68	255.01	283.52
Spain .....	37.28	39.49	40.20	40.86	27.82	172.15	185.43	184.32	204.81
Japan .....	120.85	131.77	117.32	.....	.....	611.43	625.31	787.19	.....
Switzerland .....	19.07	21.77	27.37	27.10	21.47	64.82	63.60	63.21	66.31
Belgium .....	45.32	48.04	63.08	45.49	44.14	170.75	182.76	171.76	171.62
Portugal .....	25.40	39.92	51.90	35.60	62.37	137.95	180.19	242.84	197.67
Holland .....	27.86	35.51	35.06	32.63	.....	201.44	195.19	186.69	.....
Sweden .....	36.12	51.23	52.82	53.35	.....	187.94	227.84	234.22	.....
Norway .....	20.15	29.76	32.21	27.30	.....	148.46	150.20	161.87	.....
Denmark .....	12.67	15.38	17.29	20.73	.....	297.17	267.82	418.73	.....
U.S. America *	59.79	65.78	40.35	.....	.....	183.03	164.30	190.03	194.43
Canada .....	59.55	41.00	43.51	.....	.....	146.72	144.50	.....	.....
Brazil, Mexico, etc. ....	92.60	61.14	103.22	.....	.....	457.40	.....	.....	.....

\* Approximately.

We may note that returns have been obtained from spinners representing 119,154,411 spindles out of a world's total of 133,421,004. This is a considerable improvement on the figures published a year ago, and is due in great measure to the visit of Mr. Arno Schmidt to India, and the consequent enrolment of many Indian spinners as members of the Federation. The number of spindles in Great Britain is given as 53,729,982, which does not correspond with the 57,731,829 given in Mr. Worrall's directory, because these include waste and doubling spindles. The Federation figures, which are intended to be used in reference to the direct consumption of cotton, very properly exclude these. A very useful table which is now given for the first time relates to stocks and consumption "calculated per 1000 spindles." From this the relation of stocks to probable consumption may be calculated, and the table of consumption has an additional interest in its indication of the tendency to spin finer or coarser as prices rise or fall. It must be remembered, however, that the issue is sometimes complicated by short time.

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### THE WOOL DUTIES IN CONGRESS.

REPRESENTATIVE JOSEPH W. FORDNEY, of Michigan, of the Committee on Ways and Means, defended the Aldrich-Payne tariff in an elaborate speech in the National House on Friday, May 13, 1910. Mr. Fordney took up and answered in detail a speech against the tariff delivered in Indianapolis by Senator Beveridge of Indiana. On the wool and woollen schedule Mr. Fordney said:

Of all the schedules in the tariff law the woollen schedule has been recorded as being the most technical and therefore, for those not familiar with the subject by practical experience or study, one of the most difficult to understand. For this reason the discussion of its provisions should be characterized by simplicity and directness.

The chief source of revenues for the Federal Government must, under the Constitution, be the customs duties on imports. Under the existing tariff law the duty on wool and woollens has contributed to the income of the Government during the past twelve years the sum of about \$325,000,000, an amount sufficient to characterize the woollen schedule as a revenue producer.

It is the settled policy of the Government that the import

taxes should be so levied that while producing the required revenues they shall also foster and develop and encourage American industries, to the end that there may be diversified employment for its citizens, thus preventing the intenser competition that would exist if labor and enterprise had to be concentrated only in those employments that could be carried on without the existence of a protective tariff, and for the further purpose of making the country independent of foreign supply for all the principal necessities of life.

In the application of this policy it is of the first importance that our country should insure to itself permanent domestic supplies of the staples of food and clothing. Justice requires that agriculture, the chief employment of the people, shall share in the benefits of this beneficent policy.

Sheep husbandry, that important branch of agriculture which provides the most essential material for clothing and also supplies a factor in the food supply that is of prime value and importance, has therefore a double claim upon the fostering care of the Government. Long experience, coupled with conclusive testimony, which has been abundantly produced when making up each tariff act for many years past, demonstrates that those purposes cannot be made effective with rates on wool less than those now provided for, and with this necessity before us it must now be pointed out that to secure the advantages of these duties to the American wool growers it is necessary that their wool be manufactured in the United States. Yet some gentlemen have said they could not vote for the Payne tariff bill because of the rates of duty fixed therein on imported wool coming into the United States.

In the new law, as in the Dingley law, the rate of duty on wool, as it is advanced in manufacture, has a compensatory duty above that fixed on wool in the grease. If this were not done, it would be impossible for American capital to engage in the manufacture of woollen goods in this country, for the reason that it has been shown time and time again that the rates of wages of workers in the American mills average from two to four times the wages paid abroad. These higher rates of wages constitute the most convincing justification of the protective system and the rates of duty protecting this great industry. Yet the gentleman from Indiana states that he could not stand for the rates of duty on wool and woolens then, and he cannot stand for them now, although there were no increases of duty made in this schedule at all. Were he successful in his efforts to lower the rates of duty on wool and woollen goods, he would, without question, transfer the industry to a foreign country, where cheap labor is employed, cheaper than can be found or that we ever hope to find in the United States.

The gentleman from Indiana stated that the woollen schedule was objectionable to him, and that it had not been changed for



over forty-three years, and if it had ever served a just purpose it had long since lost its usefulness and merit.

I might call the attention of the gentleman from Indiana to the fact that Schedule K, the wool and woollen schedule, *has been* changed in the last forty-three years. He can remember back to the days of 1893 to 1897, during the time of the life of the Wilson bill, which law placed wool on the free list, when the value of sheep dropped from about \$5 to from 75 cents to \$1.50 per head and when the price of wool dropped as low as 9 cents per pound in local markets. During that time the flock of sheep in the United States dropped from over 50,000,000 to about 35,000,000 head. He can no doubt remember also the improved conditions in the sheep-raising industry immediately after the adoption of the Dingley law, in 1897, which law placed a protective tariff on wool; the duty in that law was as it now exists in the Payne bill — sufficiently high to protect American farmers, growers of wool and sheep, against ruinous foreign competition. What is the price of wool and sheep to-day? In our local markets at the present time wool brings the farmer from 25 to 30 cents per pound, and sheep are selling at from \$5 to \$10 per head, and at the same time an American laboring man can buy an all-wool suit of clothes for \$10 or \$12; and all must and will admit that the price of clothing, based on the income of the average American laboring man, is much lower to-day than during the time of free trade on wool, from 1893 to 1897. So that when the gentleman states that the present rates of duty on wool have not been changed for the past forty-three years he is getting far away from the facts; and when he made that statement, if he did not know the facts he ought to have known them, and if he did know the facts he should not have made the statement.

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#### A MANUFACTURER ON THE COST OF LIVING.

ONE of the most comprehensive statements presented to the Congressional Committee on the cost of living is that of Mr. Henry M. Steel, of Edward T. Steel & Company of Philadelphia. As is well known, Mr. Steel has had a valuable practical experience as a manufacturer in Bradford, England, as well as in the United States. When he removed his establishment to this country, following the enactment of the McKinley law, some of his English operatives accompanied him, and have been doing here much the same work as they did in England. Mr. Steel has furnished much significant information on the wool manufacture

in this country, as contrasted with its conditions abroad. He said to the Congressional Committee:

The general trend of American life applied in relative proportion to the different circumstances of our people has been progressively in the direction of a more liberal expenditure. This is a good feature and indicates advance toward better living conditions. It is, however, the fundamental cause of greater living expense, and the question of the present living expense can be plainly stated not as one of the "higher cost of living," but as the "cost of higher living."

#### EARNER OF MODERATE WAGES NEVER SO WELL CIRCUMSTANCED.

In considering this question, one cannot take the cost of living at a definite limited period. Certain causes may act in one period either to advance or depress prices by influence of brief continuance. A dispassionate view of industrial and economic conditions extending over a long period undoubtedly shows that compared with conditions before and since the Civil War the earner of moderate wages was never so well circumstanced as he is at the present day. Statistics seem to prove that the wages of the working people have gradually increased, and that, outside of the present cost of food, ten years' average prices of the ordinary articles purchased by wage earners and those receiving the smaller incomes have not materially increased, in fact, in some instances are lower than previously, when the scale of wages was not as high as at the present time. Also improvements in machinery have tended to improve both quality and appearance and cheapen the cost of production. I state positively that the present industrial, physical, and social condition of people of small means is practically in all respects far superior to and on a higher plane than was the case a number of years ago.

#### FABRICS OF WOOL CONSIDERABLY HIGHER THIRTY YEARS AGO THAN TO-DAY.

I have been connected with the sale of fabrics made of wool for over half a century, and claim that my knowledge and experience in regard thereto is equal to that of any present authority, as well as contrary to the theories of the doctrinaires, including magazine writers and some of our newspapers, who make mendacious assertions in regard to wool and its products, resulting in the misleading of the general public. To my certain knowledge, fabrics of wool, whether made on the worsted or woollen system, were considerably higher thirty years ago than to-day. I recall for instance a twelve ounce, all wool fabric which we sold at that period at \$1.62½ per yard, and to-day a similar cloth can be bought at \$1 per yard, or less — 62½ per cent higher then than now.

THE FABRICS OF OLD TIMES WOULD BE LARGELY UNSALEABLE  
TO-DAY.

My business career commenced in 1856, and was continued for over five years in a country general store in the central part of Pennsylvania, which experience gives me a practical knowledge of the values of that time. At that period money was scarce, and merchandising was conducted very largely on a trading and credit basis. The financial circulating medium was largely that of the notes of country banks, founded frequently with no substantial capital, whose notes were sent to distant points to avoid their quick redemption and whose failures were a daily occurrence. The every day clothing of men of small earnings was of coarse quality and indifferent durability. It was largely made of fabrics which are now obsolete and entirely unsaleable, and which were sold at that time at twice the price at which they could be disposed of to-day. To make this statement definite, I instance two of such fabrics.

## JEANS AND SATINETTS.

The best grade of jeans, a rough fabric with a cotton warp and a wool filling, retailed at about 50 cents per yard, 27 inches wide, and the best grade of satinets at a somewhat higher price. The satinet was also a cotton warp fabric with a wool filling which appeared on the outside face of the cloth, and flocks (fine woolen dust) felted on the back to produce weight. In those days the trousers were lined as well as the coat. After a few weeks' wear, when the flocks in the back of the cloth separated from the fabric by attrition, the wearer of satinet garments found an accumulation of flocks at the bottom of his trousers and inside of the skirt of his coat.

## NO MEN'S WEAR FABRIC SO POOR TO-DAY OR SUCH POOR VALUE.

Notwithstanding the ignorant statements so freely made in public journals, which describe fabrics of the present day as poor and containing shoddy, cotton, etc., there is no men's wear fabric of to-day's manufacture which can be compared in poorness with the two fabrics I have mentioned. Further, for the same money there can be purchased to-day fabrics of twice the old value. I recall a ready-made pair of trousers retailed at a period before the Civil War for \$5, made of a cotton warp adulterated cassimere, which to-day could be bought at not more than \$2.50 — 100 per cent higher than now. The reason this particular garment is recalled to my memory is because I wore such a pair myself and I remember they were very unsatisfactory.

## THE HIGH CIVIL WAR PRICES.

During the time of the Civil War prices of even the ordinary necessities of life were enormous. Common unbleached muslin

sold at \$1 per yard, white sugar at 28 cents per pound, and other articles in proportion. A pair of good black doeskin trousers of imported material cost \$25, which sum to-day will buy two good summer suits made of pure all wool material. At that period the wages of the working man were probably not more than one-half or two-thirds of the present rates. At that time there was no complaint, as well as I remember, of the high cost of living.

EARNING ABILITY OF TO-DAY AND ECONOMY OF FORMER DAYS  
WOULD MEAN LARGE SAVINGS.

I am confident that if people of small means and small wage earning ability would go back to the more economical and plainer manner of life of those days and receive present wages, their savings would be large. Even under present conditions, the amount of savings in savings institutions, of which the greatest proportion belongs to the wage earning class, together with the enormous sums sent abroad by the foreign population of this class, indicate that their present wages in relation to their living expenses leaves a sufficient margin to provide savings for a rainy day.

TESTIMONY OF DEPARTMENT STORE HEADS AS TO GREATER  
CHEAPNESS AND VALUE OF TO-DAY.

In an interview with the heads of two departments of a large department store, with which establishment both men have been connected for over thirty-five years, the experience of the buyer of the underwear department, which includes underwear, hosiery, shirts, and collars, is as follows: after commencing his service as buyer for the department he purchased on a falling market for twenty-five years. The market then gradually recovered, but up to the present time not to the original level. As an illustration of the present cheaper prices, he tells me he retails as good an undershirt to-day at 25 cents, as he sold twenty-five years ago at 50 cents—also 100 per cent dearer then than now. Other articles in this line, he said, are in proportion. The head of the clothing department informs me that during his experience of forty years, all material and workmanship of ready made clothing has gradually improved without any practical enhancement of price. That to-day he sells a better suit, better trimmed, better made, and of better cloth for less price than thirty years ago.

MAN'S ENTIRE WEARING OUTFIT CHEAPER AND BETTER THAN  
TWENTY-FIVE YEARS AGO.

Omitting the cost of food products, I contend, and believe an investigation of facts will confirm my statement, that as relating to articles of man's requirement, his entire outfit can be pur-



chased to-day, beginning with his shoes and ending with his hat, of a better quality and at a lower price than would have been possible twenty-five years ago. This can be demonstrated by taking up any separate article. Shoes, stockings, underwear, outside wear, shirts, collars, neckties and hats all come under this category.

AND PRESENT DAY WAGES PRACTICALLY DOUBLE THOSE DURING  
AND FOR SOME YEARS AFTER CIVIL WAR.

As a corollary to this condition, present day wages average practically double what they were during and for some years after the Civil War. This is a plain and irrefutable exhibit of the present better condition of the small wage earner. Not being familiar with the prices of women's apparel, except in a general way, I can make no specific statement as to its present or earlier cost, although I believe that for similar quality it is less than many years ago. Fashion plays a most important part in this regard with its constant changes, which are followed more or less by women of all pecuniary conditions, and is a large element in any higher cost, if such there be, at present over that of old times.

CAUSES OF HIGHER FOOD PRICES.

I believe that a large part of the increased cost to the consumer of food products is due to the following causes: (1st) the present methods of placing them before the consumer through several intermediaries; (2d) cold storage; (3d) the increase of capital; (4th) also to their production not keeping up to the increase of population and the possibly greater per capita consumption.

It was formerly the custom of the small farmer to market his products directly to the consumer. I remember distinctly when on certain days of the week the farmers gathered at definite localities and there sold directly their offerings. The present method of merchandising farm products is to consign them to a commission agent, who in turn disposes of them to the grocer or dealer, who sells them to the consumer. By this means two additional intermediaries obtain a profit, which previously was divided between the farmer and the consumer.

By the cold storage means of indefinitely preserving perishable food products they can be held off the market, to be sold at the will of the dealer, and likewise can be bought up in times of plenty and reserved for a time of artificial scarcity caused by such means to exact tribute from the consumer, whereas, if such a conservation did not exist the necessity for a prompt disposal would cause their sale at a moderate and fair price. The cold storage proposition is closely allied with the use of large capital in cornering food products, which under the financial conditions



of years ago, before the present great accumulation of capital, would have been impossible to carry out.

Recent statistics of the Interior Department show that the output of food products has not kept pace with the increase in population, and, therefore, their increased prices follow simply the old rule of supply and demand.

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## THE WORLD-WIDE SHEEP QUESTION.

*(From the Canadian Textile Journal.)*

THE world over there is a shortage of wool with which to clothe its increasing population. It has been discovered by statisticians that when, as in 1895, the combined population of Europe and North America was 432 millions, the supply of clean wool was 2.91 pounds per head. In 1908, however, when the combined population was 498 millions, the per capita supply was only 2.53 pounds. Europe has not been relatively so neglectful of its duty or interest in the matter of sheep rearing as has America. Still, the shortage is felt there, for the wool goes to the highest bidder, and, as American buyers seem to be able to afford to pay higher prices than the European, or at any rate pay them, large quantities leave Europe which would otherwise be at the disposal of Old World manufacturers.

The United States, through the workings of a beneficent tariff, has helped build up enormous allied industries of wool growing and woolen and worsted manufacturing. Yet, even there the rearing of sheep has failed to keep pace with other branches of farming, or even of other branches of live stock breeding. There can be no doubt that the tariff has helped greatly, and that had it not been for its assistance the number of sheep reared in the United States would have been far less than it actually is. Probably, indeed, without that tariff, calculated as it was to keep growers and manufacturers working together on allied lines, the condition of the sheep industry in the neighboring Republic would to-day be as deplorable as it is in this Dominion. The fact, however, that there has been a decline in interest at all in the United States merely goes to show that other farming enterprises pay better, or rather that the farmers think they pay better. To show how deeply this is stirring the minds of those who have the woolen manufacturing interests at heart, may be instanced the appeal of W. M. Wood, president of the American Woolen Company, to the United States Department of Agriculture

to take immediate steps for in some manner increasing the supply of native wool. In making comparison between the two countries, Canada and the United States, it should be remembered that in one case the deficiency of wool is for an industry which has been built up to stupendous proportions under wise fiscal legislation, which makes it no matter for wonder that there is a shortage of raw material with which to carry it on. In the other case, our own, there is also a deficiency of raw material, considering the great advantages which would accrue by the rearing of more sheep. But, even for what wool we do raise ourselves, a market has to be found at low prices in other countries.

It is a strange fact, which may be mentioned in this connection, that, in spite of the advantages of Canada for sheep farming, New Zealand mutton is actually imported and eaten in considerable quantities in the Western provinces.

It is a significant fact that in New England, many parts of which we believe to be splendidly adapted to the raising of sheep, but no better than is the case in Canada, one or more large syndicates are being formed to establish sheep farms on a large scale. This seems to point to the truth of the theory that the average farmer, who surely is in a good condition to add a band of sheep to his farm equipment, is apt to let his opportunities for profit slip through his fingers, because each opportunity is one other source of worry as well as of profit. The dog danger is undoubtedly another deterrent, but this, it may be hoped in at least the case of Ontario, will be done away with through the means of the pending more stringent legislation introduced by P. H. Bowyer. Even this would be done away with by proper means of herding, and this is perhaps the reason why large companies contemplate carrying on the industry in New England. Large herds are more capable of being properly looked after, and of doing so with profit, than in the case of small flocks owned by individual farmers, possessing but meager hired help. This may be an explanation for the farmer's neglect of sheep-growing, if not his excuse.

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## TEXTILE LABOR IN GREAT BRITAIN.

### STATISTICS OF EMPLOYEES IN TEXTILE INDUSTRIES.

CONSUL AUGUSTUS E. INGRAM, of Bradford, presents interesting particulars regarding employees of English textile mills, derived from a recent British report. He says:

The British Board of Trade recently issued a return showing the number of persons employed in textile factories and workshops in 1907. Unfortunately, about 10 per cent of the factories failed to furnish the information, so in order to make the statistics as complete as possible the returns for 1904 for such factories were used on the assumption that they were still applicable. Returns for about 2.5 per cent are entirely lacking.

The total number of persons employed in textile factories in 1907 was 1,087,223, compared with 1,026,378 in 1904; an increase of 5.9 per cent. These totals were made up as follows: In 1904, adult males, 297,302; females, 489,329; young persons (full timers under 18 years), 208,003; children (half timers under 14 years), 31,744. In 1907, adult males, 310,983; females, 504,821; young persons, males, 81,270, females, 157,502; children, males, 15,107, females, 17,540.

Of this total increase of 60,845 since 1904, the cotton industry contributed 53,790. There were slight increases in all the other industries, except in the woolen and worsted trades, and the silk trade, which suffered decreases of 609 and 1,038, respectively. Among adults the increase in the number of men was 13,681, or 4.6 per cent; women, 15,492, or 3.2 per cent. The increase among young persons (full timers) was 30,769, or 14.8 per cent; among children (half timers), 903, or 2.8 per cent.

#### RELATIVE NUMBERS IN VARIOUS TRADES.

The numerical importance of each industry is shown by the following table:

INDUSTRY.	Adults.		Young Persons.		Children.	
	Male.	Female.	Male.	Female.	Male.	Female.
Cotton .....	163,114	263,252	45,766	85,637	8,862	10,189
Wool (including shoddy) and worsted .....	85,455	114,356	19,382	33,883	4,001	4,115
Flax .....	21,415	53,581	6,643	14,646	1,698	2,492
Hosiery .....	8,094	21,638	1,512	8,696	3	30
Jute .....	9,616	22,822	2,609	4,423	141	174
Silk .....	6,777	14,837	1,682	4,781	317	479
Lace .....	10,740	5,665	2,051	2,482	52	34
Hemp .....	2,728	5,520	1,041	1,550	19	25
Horsehair, elastic, ramie, cocoanut fiber .....	3,044	3,152	584	1,404	14	2

The report contains also an interesting innovation. For the first time an attempt has been made to classify unmarried, married, and widowed women. The available particulars relate

to 286,273 women out of the 504,821 female employees mentioned in the first table, and among these the unmarried, married, and widowed were, respectively, 205,353, 69,052, and 11,868, the corresponding percentages being 72, 24, and 4. It is believed, however, by those best acquainted with the textile industries that the number of married women employed is much greater than these returns indicate.

#### WOMEN IN VARIOUS TEXTILE LINES.

Arranged by industries, the women employees over eighteen years of age were distributed as follows :

INDUSTRY.	Unmarried.	Married.	Widowed.	Total.
Cotton.....	106,011	44,399	5,430	155,840
Wool (including shoddy) and worsted .....	48,742	12,445	2,840	64,027
Flax .....	22,692	5,224	1,810	29,726
Hosiery.....	9,560	2,062	250	11,872
Silk .....	6,534	1,638	408	8,580
Jute .....	5,451	1,782	677	7,910
Lace .....	3,455	595	175	4,225
Horsehair, elastic, ramie, cocoanut fiber.....	1,637	476	96	2,209
Hemp .....	1,271	431	182	1,884
Total .....	205,353	69,052	11,868	286,273

There is also a consensus of opinion that any attempt to prohibit the employment of married women in mills would at the present time seriously interfere with the supply of labor. In the last twenty years the value of women's labor in the cotton branch of the textile trades has steadily risen. A female card-room operative who, in 1889, earned 14s. (\$3.405) a week was considered well paid. Now the same grade of operative working in a cotton mill equipped with the latest machinery earns 25s. (\$6.08) a week. The wages earned in the woollen industry, while not so high as those in the cotton trade, have in recent years had an upward tendency.

Beginning with 1867 there have been various legislative acts affecting the employment of children. Finally, in 1901, an act prohibited the employment of any child under twelve in factory or workshop. The educational requirements also limit the employment of children under fourteen to such as have obtained certificates of proficiency or attendance at school. The requirements are more strict in connection with the employment of young persons in mines or in any work with minerals above ground.

# THE SILK ASSOCIATION OF AMERICA.

AN important and prosperous year has lately been ended by the Silk Association of America, which at its annual meeting in New York, on March 22, 1910, elected the following principal officers :

## *President.*

JEROME C. READ, President Read & Lovatt Mfg. Co.

## *First Vice-President.*

CHARLES CHENEY, Treasurer Cheney Brothers.

## *Second Vice-President.*

DAVID VALENTINE, President Valentine & Bentley Silk Co.

## *Third Vice-President.*

H. SCHNIEWIND, JR., Treasurer Susquehanna Silk Mills.

## *Treasurer.*

CHARLES F. HOMER.

## *Secretary.*

JACQUES HUBER.

## *Assistant Secretary.*

RAMSAY PEUGNET.

The Assistant Secretary, Mr. Ramsay Peugnet, in his annual report said :

The silk business during the year 1909, taken as a whole, may be regarded as rather unsatisfactory to manufacturers of both piece goods and ribbons. Many reasons have been advanced to account for the conditions that have prevailed in the trade, but it would seem that they may be attributed partially to an after-effect of the panic of 1907-1908, as well as to a considerable restriction in the purchasing power of the general consumer, due to the increased cost of living, and the somewhat unfavorable conditions prevailing throughout all lines of trade. Fashions also have not been especially favorable to the extensive use of silks and satins for women's dresses, except for evening gowns, or to the use of ribbons for dress trimmings. Both of these facts have had a retarding influence.

It should be borne in mind, however, that this country is so vast and growing so rapidly in population and is possessed of such unbounded natural resources that any setback in business must be regarded as only temporary. The rebound is sure to



come; the buoyancy of the American spirit and the inspiration to progress will always carry business to ever higher levels.

The silk manufacturers who have been making certain seasonable novelties, like rough silks and foulards, have been doing the bulk of the business during the past spring buying season. The demand so far as silks for dresses is concerned has been almost entirely for these two classes of fabrics. Satins have been in fairly good demand for evening wear as always, and the product of the taffeta manufacturers has gone in a great measure to the petticoat makers.

In the late fall of 1908 business began to pick up, orders were placed liberally at advancing prices, and the market was permeated with a hopeful spirit in the belief that the outlook for the spring season of 1909 was exceptionally good. But when that season actually arrived buyers found it rather difficult to dispose of goods in a satisfactory way, as the customers' demands fell far short of their expectations, and as a result business began to slacken as buyers could not book repeat orders. With the unsatisfactory demand on the part of consumers during the summer and fall the mills slowed down and ran on short time.

In this connection it may be noted that the silk business had been bad before the panic when other trades had been busy. The silk manufacturers had, therefore, been schooled to caution even before panic conditions came upon them, and so proceeded with great care in all their enterprises even after business began to revive.

When there is uncertainty as to the fabrics which are going to be worn there is always a lack of confidence in the silk market. Manufacturers do not want to take chances, and therefore the looms do not run to their fullest capacity, and it is just such a condition that has confronted the silk manufacturers for months past, but it should be remembered that very often a sudden demand comes for goods that have not been made up.

The raw silk crop has been large, which fact combined with the inactivity of the mills has resulted in exceptionally low prices for the raw material. These low prices for raw silk may easily create a demand for goods which may be had very cheaply, as the manufacturer can produce much more economically under such conditions. The present is an exceptionally favorable time for manufacturers to purchase their raw silk, as prices are almost as low as they have ever been.

It is by no means the first time that American silk manufacturers have been confronted by conditions similar to the present, and remedies have been discussed over and over again wherever two or more silk manufacturers have been gathered together. Formerly diversified production was said to be the sovereign cure for all the trade ills, and gradually the industry has adapted itself to the manufacture of a wide variety of silk goods. The most beautiful silken fabrics, the product of our American mills,

both in broad goods and ribbons, rivaling Lyons and St. Etienne in craftsmanship, color, and design, are now offered to the American woman. Certainly this has been a great step forward for the silk industry, but when fashion turns away her face the silk manufacturer always finds the necessity of dealing with the problem of how to bridge over the chasm of no demand.

This has been especially true of the ribbon branch of the industry, which is now showing some signs of improvement. For two years past the lack of demand for ribbons has been discouraging. Fashions now seem to be setting more in favor of ribbons, and the outlook is brighter than it has been for a long time.

It would be well for our manufacturers to observe the policy of the European manufacturer, who does not install a number of new looms as the result of one or two good seasons, and consequently when a bad season comes he does not have a lot of tied-up machinery and an idle plant. He can keep his looms busy all the time. This is said to be the reason why the European silk industry has been a great deal better off the past year than the American industry.

It has often been suggested that the American manufacturers should evolve a spirit of "get together" and regulate trade abuses of various kinds, especially price-cutting and overproduction. Most manufacturers, however, appear to regard such a spirit of "get together" as practically impossible of realization in any way that will affect the entire trade. They feel that the questions involved are too vital and too far-reaching to be acted upon by any trade organization, and they must be solved by the slow processes of time and the gradual evolution of the trade. The superfluous factors in any business are always slowly but surely eliminated, leaving only the vital and necessary elements. Such will doubtless be the solution of these much discussed problems in the silk industry.

During the past year the prices of raw silk have shown little fluctuation, having steadily kept rather a low level. The silk crop of 1909 was the largest on record, having exceeded the previous year by about a million kilograms, exclusive of tussah. Yet the Italian crop was not as large as before on account of unfavorable conditions in Piedmont and the failure of the crop in Southern Italy as a result of the earthquake. The increase in the Asiatic crops surpassed all previous figures, Japan's production alone having increased about 600,000 kilograms.

The most notable feature of the year in the raw silk market was the remarkable demand for tussah silks in this country, due to the vogue of rough silks and silk-and-cotton fabrics. Much of this increased importation was taken by the New England cotton manufacturers who have in recent years become such important factors in the trade. For the six months ending December 31, 1909, 1,163,729 pounds of tussah and dopponi were imported into this country, as against 755,758 pounds for the same period

last year, an increase of 54 per cent. The total imports of raw silk for the same period show a decrease of 8 per cent.

The passage of the Payne-Aldrich tariff law in August, 1909, was perhaps the most important event of the year for the silk industry, as well as for all other lines of business. It has now been in operation long enough for the silk importers and manufacturers to judge with some degree of certainty as to its practical working value. The extension of the range of specific duties, which was recommended by the Revenue Laws Committee of our association, has made it much easier to get at actual values, and undoubtedly results in a more complete collection of duties on imported goods. Domestic manufacturers also find that under the new law they can produce at a profit goods which were formerly impossible for them to manufacture on account of foreign competition. The law has also resulted in foreign manufacturers being induced to locate their plants in this country, and plans for several such mills are already under consideration.

The progress and rapid development of the United States Silk Conditioning Company has been one of the noteworthy features of the trade during the past year. The business of the company has practically doubled, and the concern may now be said to be self-maintaining. The support that has been accorded this institution by the silk manufacturers, and the greater recognition of the benefits to be derived from the various tests that are made there, are proof of the wisdom and foresight of the leading members of our association who brought about its establishment.

At the annual banquet of the association, held at the Waldorf-Astoria, the retiring President, William Skinner, Esq., made appropriate reference to the death of Colonel Franklin Allen, long Secretary of the association, and of Colonel Frank W. Cheney of Connecticut. The speakers were Dr. Paul Ritter, Swiss Minister to Washington; Senator Reed Smoot of Utah; Attorney-General Edmund Wilson of New Jersey; Representative Philip Pitt Campbell of Kansas, and Rev. Henry R. Rose of Newark.

Senator Smoot emphasized the value of protection to the silk manufacturing industry, saying to his auditors:

I fully realize that some of you are importers and some domestic manufacturers. To both of you I will say that but for the general prosperity of the country there would be but little market for your goods. The greater part of our prosperity depends upon our protective tariff system. You all well know the strides your industry has made in this country. It would be needless for me to give you facts and figures connected there-

with. You have truly prospered ; but how has it been with free trade England? Her silk industry has been practically wiped out within the last fifty years, while this association alone represents about one hundred million dollars in industry with a development of only a little more than a century's growth.

We assert that we have a great government, a grand Republic, a magnificent system of administration of our laws. So we have, yet in recent years there has been a phenomenal advance in the cost of living. It has reached such a point that an investigation is demanded to ascertain the causes. It is bewildering to try to follow the reasons ascribed by the yellow journalism of to-day, wherein the Tariff Act of 1909 appears to constitute the leading cause. I deny that the Tariff Act of 1909 is the cause of the advance in the cost of living. Strange as it may seem the greatest advances since the passage of the recent tariff act have been upon articles on the free list, or upon which the duties were decreased, or upon which no advance was made over the Dingley rates. It is also noticeable that the extreme advances are upon the products of the farm ; yet the advance received by the farmer is insignificant in comparison with the increase paid by the consumer. What is the explanation of it all? I must content myself with a brief review of the situation.

During the consideration of the recent tariff bill I learned that there was an enormous difference between the price of goods invoiced to the importer and the price paid by the ultimate consumer. It was so remarkable that I made an examination of these respective prices on some hundred or more articles. The result showed a difference in prices of from 200 to 800 per cent.

Mr. Toastmaster, there is something wrong in a system of distribution which will allow such results. I also found some enormous differences between the price of certain manufactured articles in this country received by the manufacturer and the cost of the same to the consumer. In some instances it was almost as much as in the case of imported articles. The retailer is playing with fire when he sets out deliberately to deceive the public, and in some cases I know it has been attempted. I was purchasing a pair of gloves the other day, and after selecting a pair similar to a pair I had purchased at the same place last winter, I asked the price and was told \$2. I objected to paying \$2 on the ground that I had heretofore only paid \$1.75, to which the salesman replied that the advance in the price of the gloves was due to the advance in the tariff. Other people have had similar experiences with shoes, cotton goods, woollen goods, farm products, lumber, groceries, and scores of other items, upon which the tariff has either been decreased or remained the same as under the Dingley Act.

With our standard of living so advanced come social responsibilities and less personal labor in the home. I cannot approve of our expensive and extravagant ways of living, all of which



tend to increase the cost of the necessities of life. To-day customers demand immediate service. They telephone perhaps a half dozen times a day for the most trifling articles and require that they be delivered miles away at once. The wicked waste indulged in by our people has a marvelous effect upon the values of our products. So widespread has this practice of waste become among all classes of people that it is the duty of every public journal and every man and woman to urge its discontinuance. All these things greatly add to the high prices prevalent to-day.

Prices are advancing all over the world, in free trade countries, in oriental countries, as well as in protection countries. Supply has not kept up with the demand, and especially is this true with the products of the farm. That this rise in prices should occur just when we are enjoying the fruits of industry built up by the protective policy is a coincidence, not a cause. In free-trade England prices have advanced since 1904 by 22 per cent; in America 21.2 per cent. In China rents have advanced 40 per cent, while food and clothing have advanced from 25 to 100 per cent in the last ten years.

Compare the present tariff rates on almost every article which the American wears or eats with those of the Dingley Act, and you will note that the present rates are lower than the Dingley rates. It is true that the higher priced silks were advanced as well as the finer and costlier cotton goods. It is also true that champagne, wines and liquors were advanced 15 per cent; it is true the internal revenue on tobacco was advanced two cents per pound to take effect July 1, 1910. But not one of all these articles is necessary to man's comfort or happiness. The tariff rate on every article used by the man who works and is dependent upon his labors for his livelihood has either been reduced or has remained as it was under the Dingley Act.

Some people in this country of ours resort to any extreme to seek an opportunity to condemn the policy of protection. Just now the coincidence of high prices furnishes them with an excuse for finding fault with it. Next year it may be some other condition. These people are the disturbing element in the industrial world, but they may be blessings in disguise, for it is not until they arouse us with their complaints that we enumerate the many benefits we have reaped under the protective policy. Like the blessings of Providence we take these benefits as a matter of course without pausing to think how we have secured them.

Has any one forgotten how the American people have advanced industrially within the last fifty years? We find that we are now producing for the world, as well as for ourselves, articles that once were thought impossible. This result has been accomplished by shutting out the products of other countries if they could be duplicated here. Consider what such a policy has done for the tin plate industry, the plate glass industry, the pottery industry, the woolen industry, the lace industry, and your own



industry. Then by contrast look at these industries as they now exist in Great Britain since she abandoned protection, and what do you see? The tin plate industry in Wales destroyed, plate glass industry nearly destroyed, pottery industry running on a diminishing scale, woolen industry fast falling away, lace industry fostered only by royal patronage, silk industry almost wiped out. In the case of Great Britain all of these were great thriving enterprises under her policy of protection, but as soon as she changed to free trade or her revenue tariff system, first one industry then another began to decay.

On the other hand, what is the present condition of our own people under our system of tariff? Industries are certainly not languishing, nor are paupers multiplying. A barometer of the condition of industry is immigration. I see that it is predicted that during this fiscal year nearly a million immigrants will reach your port here. Another indication of the condition of the people is the savings bank deposits. They now amount to \$5,678,735,-379, equal to \$75 per capita, if we consider the entire population; but this vast sum belongs really to 14,894,696 depositors. Just notice how these savings compare with the savings elsewhere. In all the postal savings throughout the world there were only \$2,000,000,000 on deposit against the nearly three times that amount on deposit in our own country.

It is well enough to theorize about the preference to be given a revenue tariff system. Those calamity howlers in our midst who are raising these questions and wishing to keep up tariff agitation are no doubt expert at theorizing; but practical illustrations of industrial development, or rather lack of it, in a free-trade country, explode their theories.

You will remember that a French economist, M. Levasseur, who visited this country in 1893, reported as a result of his investigation of industrial conditions here: "The working man and business man," he observed, "are indistinguishable in the street by reason of their dress. The women, and above all, the young girls, love display, and it is not rare to see them on Sunday in silk gowns."

I wonder what he would say now if he could walk the streets of your city at this season and behold the rich display of furs, an article that was formerly exclusively for kings. Considering these facts I wonder if the American workingman realizes that he is the best paid, the best clothed, the best fed, and the best housed of any workingman in this world of toil. Last year we exported \$1,638,355,593 worth of the product of his labor, while we maintained a tariff against every foreign country in the world to protect him against foreign labor and to enable him to enjoy a higher standard of living than that enjoyed by the workingman of any other country. Has he forgotten these facts? I doubt it. The reason for the happy condition in which he finds himself can be told in four short words; the first two, a choice gift of God —

AMERICAN LIBERTY; the last two, a policy enacted into law — AMERICAN PROTECTION.

This is not the worst possible world, nor is it the best; but it is far better than it was in ages past and it will continue to grow better. It does so in commerce, industry, honesty, loyalty, and patriotism exactly in proportion as the merchant, the manufacturer, and the citizen are public-spirited men. We must look upward before we can lift upward.

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### ELECTRIC POWER IN THE WEST RIDING.

CONSUL FREDERICK I. BRIGHT, of Huddersfield, has forwarded a summary of a preliminary report by the English textile committee appointed to make investigations of the adaptability of electric power for driving purposes in the existing mills and factories of the West Riding woolen manufacturing industries. The report states in substance :

(1) In good installations there is practically no difference in cyclical variation between mechanical and electrical transmission when measured at the end nearest the main drive. (2) Any initial cyclical variation which may exist at the driving end is liable to be increased if transmitted through long shafts. (3) So far as any irregularity is concerned (excluding breakdowns) electrical transmission will maintain its condition better than mechanical transmission. (4) In modern textile factories of ordinary dimensions, and where the power is generated on the site, power is conveyed with less loss by mechanical than by electrical transmission, but where the plan of the buildings involves awkward angles of drives or irregular arrangement of machinery, the saving in power by electrical transmission begins to appear.

The question of the adoption of electrical or mechanical driving is largely one of cost. By adopting electric driving the following advantages can be obtained : (1) Ease of checking daily power required for running individual machines and departments. (2) Ability to run only a portion of the plant. With mechanical transmission the same object may be attained by the judicious application of clutches and similar devices. (3) Reduction in the number of belts, shafts, gears, etc. (4) Ease of regulating the speed and of introducing periodical speed variations if individual driving be adopted. (5) Ease of utilizing the available space to the best advantage. (6) Saving in the cost of the engine house and its foundations; or if an outside source of supply is available it should result in a reduction in the first cost of the installation and buildings due to the absence of the power-generating plant.

## THE UNREST OF BRITISH LABOR.

THERE have been some active and profitable months in the woolen trade of Yorkshire, but they have brought in their train some very serious difficulties. One of these relates to the wages of labor. There have come insistent demands for higher pay and shorter hours for the operatives. The trouble has spread to the heavy woolen mills of Batley and Dewsbury, where the men have asked for an increase to twelve cents an hour for night and overtime wages.

The increased cost of living is given as a justification for the demand for higher pay. This is a subject which seems to be producing as much concern in free trade Yorkshire as in protectionist Massachusetts or New York or Pennsylvania. These English operatives declare that "they find it difficult to live as well as they used to do, owing to the high price of provisions." This is the lament of able-bodied men, who have been earning only 25s., or about \$6 a week.

As an inevitable result of such inadequate pay it is complained by manufacturers in Leeds, Batley, and Dewsbury that "There is a shortage of weavers," and the significant reason given is that "Owing to the low prices paid to weavers in the district, first class hands have not been trained during the last few years."

It is conditions like these that are giving force to the demand in English industrial centers for an abandonment of the system of free trade and for the adoption of some measure of protection. The English wool trade as a whole is holding its own, and through the past few months has had an exceptionally heavy volume of production. But while this satisfies the manufacturers, it does not satisfy the wage-earners, who are scarcely able to keep soul and body together on \$6 or less a week, in the face of a generally increased cost of the necessities of life. That boasted English "cheapness" seems just now to be confined chiefly to the commodity of labor.

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 THE WOOL DUTY AS A FARMER SEES IT.

IN the "New York Sun" there is published this incisive article from a correspondent signing himself "Iroquois":

In discussing the tariff on wool seldom is the heart of the matter reached. The tariff policy prevails in this country. So long as it does prevail all classes should share its benefits and disadvantages. Manufacturers and city workmen should not benefit by the profits and higher wages that may accrue from a tariff if the farmer and the country worker do not share them; nor should country people have to buy articles on a protected market if they are obliged to sell their products in competition with the world.

Last year there was a great agitation for free hides on the part of manufacturers and consumers. At the same convention at which manufacturers demanded free hides they also passed resolutions against reducing the tariff on the product of these hides. Cattlemen insisted that free hides should mean free products thereof, and while they were not entirely successful they did secure a reduction of the tariff on shoes, harness and other leather products which they use. The other day a shoe merchant told me with a long face that English shoes were being offered in this country at prices below the point at which they could be produced here. I am a cattle breeder, and I told him that if I had to sell my hides on an open market it should be my privilege to buy my shoes and my harness on exactly the same terms. Why not?

Take the case of wool. The protection on this staple seems to be a great deal more than it really is, as you will find by investigation. Another matter worthy of consideration is the unreliability of sheep statistics. In the old days the number of sheep on farms on January 1 was fairly representative of the number the year through. It is not so to-day, because of the practice of marketing lambs, which was unknown not so many years ago. To-day millions of lambs are born and slaughtered between January 1 of one year and January 1 of the next, and they do not figure in the statistics at all. Our national flock has actually increased in recent years much more than the statistics quoted in the "Sun" would indicate.

As to wool and the tariff on it, are the manufacturers and the workmen who produce fabrics made of wool willing to be placed on an equality with the farmer? Some of them demand free wool; but you will find that they want the tariff to remain on the products of their mills and their labor. The farmer will insist when this question comes forward that his product and his labor are entitled to just as much protection as the other fellow's product and labor. Isn't this equitable?

Our friends the manufacturers talk much of "free raw material." What is raw material? Over a century of the skill of some of the best minds in the country has been required to breed sheep that produce fine delaine wool. I must feed and shelter and care for them a year, then clip them and haul to market their wool. I must graze them on land worth \$100 an acre and raise



feed for them on this valuable land. I must prevent burrs from growing on my land. I contend that this wool is my finished product, just as much as the broadcloth is the manufacturer's finished product. With my investment in land, grain, forage, labor, skill and blood I am entitled to as much protection as anybody. I should no more be compelled to compete with the breech clouted natives of Australia running sheep on free grass than the manufacturer or wool worker with the so-called pauper labor of Europe. If the duty on wool must go, all right; but the duty on the manufactures of wool must go along with it. We farmers are not going to sell wool in competition with the world and buy clothing on a restricted market.

One thing more. The tariff system of this country hits the farmer in a few places as a seller, but in many places as a buyer. We have tariffs on our grains which have amounted to little because we are an exporting nation. We have tariffs on our meats and meat animals which have benefited us little for the same reason. We have tariffs on fruits that we do not produce, and on sugar that we produce to some extent. Our tariff on dairy products amounts to little since the new interpretation of the duty on cream which of course means butter also. In all we have a few tariffs that help us to keep our own markets, but everything we buy from a nail to a binder comes over the tariff wall or is composed of materials surrounded by it; and yet we are asked to give up what few benefits we have to reduce the cost of living for manufacturers and workmen in cities, who benefit more than we do by the tariff.

In discussing this matter recently the "National Stockman and Farmer" told agricultural producers that no industry could prosper permanently which sells all its products in an open market and buys all its supplies in a protected market, and it's true. The wool tariff may have to go, and likewise all other tariffs on food and clothing; but the farmers of America are not likely to stand around and see them go without demanding that tariffs on things they buy are put on the same basis. What's sauce for the goose is sauce for the gander.

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### THE 1909-10 WOOL SEASON IN AUSTRALIA.

GOLDSBOROUGH, MORT & Co. in their annual review of the last Australian wool season make exceedingly interesting comments, some of which are here reproduced:

The price of wool for the last few years has been on a higher plane than for a very long period, and it would appear that what was until recently looked on as a fair average value is below what we may consider a fair expectation for future guidance, and that the level experienced since 1906 may be reasonably



expected to continue, of course subject to the variations that have always been a marked feature of the trade.

A higher standard of living, combined with a decrease in supply of the raw material as compared with the increase in population, is the main cause for assuming that the old order has passed, and that values of past decades are no criterion for the future.

The season opened under very favorable auspices, in striking contrast to its predecessor, the keynote, however, being one of caution, the trade apparently fully recognizing the responsibility attendant on an increased clip and high level of values ruling.

A sharp setback occurred at the earlier auctions, but the demand asserted itself, and the market towards the end gained strength at every stage, closing at rates quite on a par with those ruling at the inaugural sales, with a reservation in the case of the best merinos.

The one sensational feature of the series was the strike of the coal miners in New South Wales, causing a dislocation in shipping, and necessitating a stoppage of sales throughout the Commonwealth, proving, however, in many cases, a blessing in disguise to growers.

The financial strain consequent on the above was promptly met by concerted action on the part of selling brokers, who framed regulations that completely met the conditions, affording a practical proof of the benefits derivable from the Federal understanding recently arrived at.

The growth of the winter auctions is becoming a pronounced factor in Australian sales, and indications are not wanting that future developments in this direction may be looked for.

Subdivision of landed estates by natural and other causes is bringing about a decided change in the nature of the offerings, both in the bulk and class of staple, and the care given to the marketing of these smaller parcels, particularly in the method of interlotting in Australia, compares favorably with the conservative practices still in force in London.

A regrettable feature in the trade, in our opinion, is the multiplication of markets in the Australian States. This can only have the effect of dividing the buying power, the concentration of which is a feature decidedly to be desired. Selling on the ground is also to be deprecated for the same reason.

Australian sales have, in the past, been built up on the policy of centralization by keen enterprise and at great cost, any departure therefrom being inimical to growers and a retrograde movement.

The outstanding feature of the year has been the strong support accorded to crossbreeds of all grades, despite the great volume and ever-increasing production of these wools in the districts from which this center draws its main supplies. Never before have the home buyers had such a selection to choose from, and that they so readily responded to the increased supply

speaks volumes for the stability of this branch of the staple. They were aided in no small degree by the American operators, while the French section practically secured the whole of the lambs, as also being large buyers of pieces and the better grades of comebacks.

Magnificent rains have fallen during the last ten days over the whole of Australia, and we have never known a season with such promise. A heavy lambing is assured, while for agriculturists prospects are all that could be desired.

#### THE CLIP.

Broadly speaking, the clip may be described as a good one, the districts from which the bulk of this market's supplies are drawn having experienced a more or less favorable season.

Riverina wools, more particularly those from the eastern side, showed out well and in marked contrast to last year's, and rarely have been seen to better advantage in point of style, growth, and general excellence.

Those grown on the western and southern slopes carried a fair amount of condition and burr, but were well grown, fairly sound, and of good bulk.

Hay wools were above the average, being deep-stapled, fine, and soft handling.

Darling clips, particularly those from the Broken Hill district, carried unmistakable signs of a hard season, opening up in wasty condition.

The clip from the southeast of South Australia, although of fair average, suffered by comparison with the previous year, lacking somewhat in staple, and carrying more condition.

The great bulk of Queensland wools handled in this center, which come from the central division of that State, made a very fine show, forming one of the best collections ever seen in this market. They were well grown, dense, sound, of good handle, and free from any excess of vegetable matter; a large proportion being taken on American account.

The Tasmanian clip as a whole carried a greater amount of yolk than last year, although admittedly better grown, but probably not so fine.

Western district wools can be summed up as disappointing, for while a few marks stood out, they were generally speaking patchy, as regards condition and general appearance, owing, perhaps, to the rigorous winter experienced having retarded the growth of the staple.

The output from the Wimmera was quite up to the standard usually associated with the district, being well grown and in good condition. Some of the clips, indeed, have never been seen to better advantage, and compared favorably with those from the adjoining district.

The Gippsland clip, which is improving every year both in character and general style, may be described as good, the same remarks applying to that from the northeast of Victoria.

## UPHOLDING MR. HARDING.

SOME significant indorsements of the views set forth by Mr. Charles H. Harding of the Erben-Harding Company, on the question of the wool duties, have been received by Mr. Harding. They come too late to be published with his article.

Mr. H. Hartley, of Boston, writes Mr. Harding:

After carefully reading your pamphlet I fully endorse every remark you have made and think you have covered the point very thoroughly. I will make this statement, that if the carded wool manufacturers will show me any grade of combing wool that the worsted manufacturers are importing I will guarantee to import for them a corresponding grade of clothing wool suitable for their requirements at the same price clean scoured delivered Boston, and could probably land it for them at a little less money. . . .

During the last three years they have frequently had the opportunity of buying some of their raw material, such as noils, wastes, etc., on practically a free wool basis and yet with all these advantages they were not able to find a market for their goods simply because the goods were not in fashion. To-day they are getting a good share of the business in proportion to worsted manufacturers simply because the fashion favors woolen goods for the present.

George Fernau & Son, of London, write the Erben-Harding Company:

We have this day received your vice-president's printed letters of April 14 and April 21 and the facts therein set forth are so evident to all who are familiar with the conditions of wool business in America that ocular demonstration, in the shape of samples, appears to us to be quite superfluous. We may add that for many years, before the worsted trade attained its present development in America, we bought considerable quantities of greasy wools in this market exclusively for the woolen (carded yarn) manufacturers and there has never been any greater difficulty in executing orders for clothing wools in this market than for combing wools of the same classes.

DECISIONS OF THE TREASURY DEPARTMENT ON  
THE WOOLEN TARIFF.

(T.D. 30422 — G.A. 6990.)

*Furniture.*

FURNITURE OF WOOD—FURNITURE IN PART WOOL AND SILK.—The provision in paragraph 208, tariff act of 1897, for "furniture, of wood," is not limited by the words "of which wood is the component material of chief value;" and furniture with wooden frames, upholstered with silk-wool tapestry, wool chief value, is dutiable under said provision.

United States General Appraisers, New York, March 10, 1910.

In the matter of protest 312283 of A. J. Woodruff & Co. against the assessment of duty by the collector of customs at the port of New York.

Before Board 1 (SHARRETTS, McCLELLAND, and CHAMBERLAIN, General Appraisers; McCLELLAND, G.A., absent).

CHAMBERLAIN, *General Appraiser*: The merchandise under protest consists of two tapestry-covered armchairs of gilded wood, wool the component material of chief value. Duty was assessed thereon under paragraph 366 of the tariff act of 1897 as manufactures of wool at the rate of 44 cents per pound and 55 per cent ad valorem; and it is claimed to be dutiable under paragraph 208 of said act at 35 per cent ad valorem as house or cabinet furniture, of wood, wholly or partly finished.

The question at issue was decided by the Board in Abstract 18543 (T.D. 29645) adversely to the importers. On appeal the Board was reversed both in the United States Circuit Court and the United States Circuit Court of Appeals. *Woodruff v. United States* (168 Fed. Rep., 452; T.D. 29645) and *United States v. Woodruff* (T.D. 30211). In these cases the Court held the provision in paragraph 208 for "furniture, of wood" is not limited by the words "of which wood is the component material of chief value;" and that furniture with wooden frames, upholstered with silk-wool tapestry, is dutiable under said provision rather than under paragraph 366 as "manufactures of every description . . . in part of wool," or under paragraph 391 as "manufactures in chief value of silk."

A similar conclusion was reached by the United States Circuit Court of Appeals for the third circuit in the case of *United States v. Hempstead* (T.D. 30366), wherein the merchandise was furniture of wood, metal constituting the component material of chief value. Note, also, G.A. 1647 (T.D. 13226).

Conforming to the Court decisions cited (*supra*), we find the merchandise to be house or cabinet furniture of wood, and hold it dutiable, as claimed, at 35 per cent ad valorem under paragraph 208.

The protest is sustained. Reliquidation will accordingly follow.

(T.D. 30447.)

**Abstract No. 22885.**—EMBROIDERED WOOL BATHING SHOES.—Protest 395659–30969 of Marshall Field & Co. (Chicago).

Merchandise classified as embroidered wool wearing apparel under paragraph 371, tariff act of 1897, was claimed to be dutiable as wearing apparel in chief value of cotton (par. 314).

CHAMBERLAIN, *General Appraiser*: The merchandise in question consists of bathing shoes composed in part of wool and having an embroidered design on the vamp. . . .

The claim is untenable and the assessment erroneous. The assessment is erroneous for the reason that articles of wearing apparel, composed wholly or in part of wool and embroidered, are more specifically provided for as “articles of wearing apparel of every description” in paragraph 370, act of 1897, than as “articles embroidered by hand or machinery” in paragraph 371 of said act. G.A. 4890 (T.D. 22893). The claim is untenable for the reason that paragraph 370 applies to all wearing apparel composed wholly or *in part of wool*, even though cotton be the component material of chief value. *Stone v. Heineman* (100 Fed. Rep., 940).

We find the merchandise to be wool-wearing apparel, embroidered, and hold it dutiable under paragraph 370 of the act of 1897. This claim not having been made, we are obliged to overrule the protest without affirming the action of the collector.

BEFORE BOARD 3, MARCH 16, 1910.

**Abstract No. 22932.**—DATE OF EFFECT OF TARIFF ACT OF 1909—PERMIT OF DELIVERY.—Protest 382964 of John Dunn, Jr., & Co. (Philadelphia).

HAY, *General Appraiser*: This invoice bears the stamp “Custom-House, Philadelphia, August 4, 1909. Invoice presented with entry.” Also “Delivery permit August 10, 1909, issued.” The date of the entry appears from the collector’s letter (the entry itself not having been forwarded to the Board) to be August 4, 1909. The merchandise, fancy feathers, was assessed for duty under the tariff act of 1909, and is claimed to be properly dutiable under the act of 1897. In an explanatory letter the collector says:

While the above entry was filed in this office on August 4, 1909, the duties were not paid until August 6, and consequently no permit of delivery as contemplated by Section 29 of said act was issued until that date.

The pertinent part of Section 29 reads:

Sect. 29. That on and after the day when this act shall go into effect all goods, wares, and merchandise previously imported, for which no entry had been made, and all goods, wares, and merchandise previously entered without payment of duty and under bond for warehousing, transportation, or any other purpose, for which no permit of delivery to the importer or his agent has been issued, shall be subjected to the duties imposed by this act and to no other duty, upon the entry or the withdrawal thereof. . . .



Prior tariff acts have taken effect on the day of their passage, but, by Section 42 of the act of 1909, it is provided that it "shall take effect on the day following its passage." The law recognizes no fractions of days, except where, from the nature of the case, the ends of justice require it. No such exception exists as to the time of taking effect of the tariff act of 1909. This act therefore became effective at the beginning of the day of August 6, and was therefore in effect on the day when the duties were paid in this case and the permit of delivery issued.

It follows under the express and unambiguous language of Section 29, that the merchandise in question was dutiable under the provisions of the act of 1909. The protest is therefore overruled and the action of the collector in assessing duty under the act of 1909 is affirmed.

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(T.D. 30540.)

*Drawback on carded wool.*

Drawback on carded wool manufactured by E. S. Parkhurst & Co., of Gloversville, N.Y., with the use of imported wool in the grease. — T.D. 28133 of May 3, 1907, amended.

TREASURY DEPARTMENT, April 18, 1910.

SIR: The Department's regulations of May 3, 1907 (T.D. 28133), providing for the allowance of drawback on carded wool manufactured by E. S. Parkhurst & Co., of Gloversville, N.Y., with the use of imported wool in the grease, are hereby amended as follows: The sworn abstract from the manufacturing record shall show the weight of the imported wool used, the weight of the cleaned wool laid down in batch, the weight of the emulsion added, the percentage of oil and soap used in such emulsion, and the net weight of the carded wool produced.

Samples should be taken by the collector and submitted to the United States chemist for the purpose of ascertaining the percentage of oil in the exported product and the weight upon which to base drawback should be that of the exported carded wool less the oil present therein. The net weight of the carded wool exported, thus ascertained, with the proper quantity added thereto, to compensate for worthless waste, as shown in the sworn abstract, shall be taken as the basis for the allowance of drawback.

Respectfully,

JAMES F. CURTIS,

*Assistant Secretary.*

(44613.)

COLLECTOR OF CUSTOMS, New York.

QUARTERLY REPORT OF THE BOSTON WOOL MARKET  
 FOR JANUARY, FEBRUARY, AND MARCH, 1910.

DOMESTIC WOOLS. (GEORGE W. BENEDICT.)

	1910.			1909.
	January.	February.	March.	March.
OHIO, PENNSYLVANIA, AND WEST VIRGINIA.				
(WASHED.)				
XX and above . . . . .	36 @ 37	36 @ 37	35 @ 36	35
X . . . . .	34 @ 35	34 @ 35	33 @ 34	33 @ 34
Blood . . . . .	40 @ 41	40 @ 41	39 @ 40	40
" . . . . .	40 @ 41	40 @ 41	39 @ 40	40
" . . . . .	38 @ 39	38 @ 39	37 @ 38	38
Fine Delaine . . . . .	38 @ 39	38 @ 39	37 @ 38	38 @ 39
(UNWASHED.)				
Fine . . . . .	27 @ 28	27 @ 28	26 @ 27	25 @ 26
Blood . . . . .	36 @ 37	36 @ 37	35 @ 36	31 @ 32
" . . . . .	36 @ 37	36 @ 37	35 @ 36	
" . . . . .	34 @ 35	34 @ 35	33 @ 34	30 @ 31
Fine Delaine . . . . .	31 @ 32	31 @ 32	29 @ 30	31
MICHIGAN, WISCONSIN, NEW YORK, ETC.				
(WASHED.)				
Fine . . . . .				
Blood . . . . .	39 @ 40	39 @ 40	38 @ 39	39
" . . . . .	39 @ 40	39 @ 40	38 @ 39	38
" . . . . .	37 @ 38	37 @ 38	36 @ 37	37 @ 38
Fine Delaine . . . . .	37 @ 38	37 @ 38	36 @ 37	38
(UNWASHED.)				
Fine . . . . .	26 @ 27	25 @ 26	24 @ 25	23 @ 24
Blood . . . . .	35 @ 36	35 @ 36	34 @ 35	30 @ 31
" . . . . .	34 @ 35	34 @ 35	33 @ 34	29 @ 30
" . . . . .	33 @ 34	33 @ 34	32 @ 33	
Fine Delaine . . . . .	30 @ 31	30 @ 31	28 @ 29	30
KENTUCKY AND INDIANA.				
(UNWASHED.)				
Blood . . . . .	36 @ 37	36 @ 37	35 @ 36	30 @ 31
" . . . . .	34 @ 35	34 @ 35	33 @ 34	29 @ 30
Braid . . . . .	29 @ 30			26
MISSOURI, IOWA, AND ILLINOIS.				
(UNWASHED.)				
Blood . . . . .	33 @ 34	33 @ 34	32 @ 33	
" . . . . .	32 @ 33	32 @ 33	31 @ 32	28 @ 29
Braid . . . . .	28 @ 29	28 @ 29	27 @ 28	24 @ 25
TEXAS.				
(SCOURD BASIS.)				
Spring, fine, 12 months . . . . .	72 @ 73	72 @ 73	70 @ 71	63 @ 65
" " 6 to 8 months . . . . .	66 @ 67	66 @ 67	64 @ 65	54 @ 55
" " medium, 12 months . . . . .	66 @ 67	66 @ 67	64 @ 65	55
" " 6 to 8 months . . . . .	60 @ 62	60 @ 62	58 @ 60	49 @ 50
Fall, fine . . . . .	61 @ 62	61 @ 62	59 @ 60	49 @ 50
" medium . . . . .	53 @ 55	53 @ 55	52 @ 53	45 @ 46
CALIFORNIA.				
(SCOURD BASIS.)				
Spring, Northern, free, 12 months . . . . .	66 @ 68	66 @ 68	64 @ 66	55 @ 56
" " " 6 to 8 months . . . . .	62 @ 64	62 @ 64	60 @ 62	52 @ 53
Fall, free . . . . .	53 @ 55	53 @ 55	51 @ 53	42 @ 44
" defective . . . . .	40 @ 45	40 @ 45	38 @ 43	35 @ 38
TERRITORY WOOL: Montana, Wyoming, Utah, Idaho, Oregon, etc.				
(SCOURD BASIS.)				
Staple, fine and fine medium . . . . .	73 @ 74	72 @ 73	70 @ 71	64 @ 65
" medium . . . . .	67 @ 68	66 @ 67	64 @ 65	57 @ 58
Clothing, fine . . . . .	68 @ 69	67 @ 68	65 @ 66	59 @ 60
" " medium . . . . .	66 @ 67	65 @ 66	63 @ 64	56 @ 57
" medium . . . . .	63 @ 65	62 @ 64	60 @ 62	53 @ 55
NEW MEXICO. (Spring.)				
(SCOURD BASIS.)				
No. 1 . . . . .	66 @ 68	66 @ 67	65 @ 66	57 @ 58
No. 2 . . . . .	57 @ 58	56 @ 57	55 @ 57	48 @ 49
No. 3 . . . . .	46 @ 48	45 @ 47	43 @ 45	38 @ 40
No. 4 . . . . .	43 @ 45	42 @ 44	38 @ 40	35 @ 37
NEW MEXICO. (Fall.)				
(SCOURD BASIS.)				
No. 1 . . . . .	55 @ 56	54 @ 55	52 @ 53	48 @ 49
No. 2 . . . . .	48 @ 50	47 @ 49	45 @ 47	39 @ 40
No. 3 . . . . .	43 @ 45	42 @ 44	40 @ 42	33 @ 34
No. 4 . . . . .	40 @ 41	40 @ 41	37 @ 38	32 @ 33
GEORGIA AND SOUTHERN.				
Unwashed . . . . .	30 @ 31	30 @ 31	28 @ 30	28

## DOMESTIC WOOL.

BOSTON, March 31, 1910.

The wool trade during the first quarter of the year has been most unsatisfactory and disappointing owing to the inability of the mills to obtain satisfactory orders for their goods.

The heavy-weight season up to this time has proved a failure as far as worsted fabrics are concerned, and, while some of the woolen mills have obtained a fair amount of orders, their wool requirements are comparatively small. Some of the largest worsted manufacturers were heavy buyers of wool in anticipation of the heavy weight season and therefore have not been factors in the market since the turn of the year.

Both territory and fleece wools are in fair supply and with the new clip not far off the situation is not encouraging.

Considering these conditions, it is surprising that values have held so well, and, while of late they have been in favor of the buyer (especially on delaine grades) holders as a rule have been imbued with such a spirit of optimism and with the feeling that it will be difficult to replace wool in the country when the clip opens that prices have been fairly well sustained. Both washed and unwashed delaines have been particularly neglected and values have had to be revised downward to meet the competition of foreign wools.

New Arizona wools have arrived on the market and are held on a basis of 62 to 63 cents scoured. The staple is rather shorter than last year and this it is thought will be characteristic of most of the 1910 clip, owing to the generally severe winter experienced in the territories.

Scoured wools have moved in moderate quantities to woolen mills at reductions of about 5 per cent from previous quotations.

GEORGE W. BENEDICT.

PULLED WOOLS. (*Scoured basis.*) (W. A. BLANCHARD.)

	1910.			1909.
	January.	February.	March.	March.
Brushed, Extra. . . . .	72 @ 74	70 @ 73	70 @ 72	70 @ 72
Fine A . . . . .	67 @ 69	66 @ 68	65 @ 67	62 @ 65
A Super . . . . .	60 @ 64	60 @ 63	58 @ 62	55 @ 60
B Super . . . . .	52 @ 57	52 @ 56	50 @ 55	46 @ 53
C Super . . . . .	37 @ 40	36 @ 40	35 @ 40	28 @ 33
Fine Combing . . . . .	63 @ 68	62 @ 67	60 @ 65	58 @ 63
Combing . . . . .	52 @ 58	52 @ 56	50 @ 55	48 @ 55
California, Extra . . . . .	65 @ 70	65 @ 70	65 @ 68	62 @ 67

## REMARKS.

The market for the quarter has been far from satisfactory. Business was fairly well sustained through January, with only a slight recession in prices; but in the subsequent months sales steadily fell off and values weakened. At this season of the year the production runs largely to combing wool and to

supers of sufficient length for worsted purposes; but, owing to the extreme depression in this industry, these wools have met with little demand. In fact, the quotations as given are holding figures representing pullers', rather than buyers', ideas of value.

The heavy-weight season has been a distinct disappointment, but the orders that were obtained were principally for woolen goods; hence a comparatively better demand for wools of clothing length and particularly for extras, fine A's and high grade A supers. B and C supers have been slow of sale on account of the continued displacement by Class III wools.

Boston, April 1, 1910.

FOREIGN WOOLS. (MAUGER & AVERY.)

	1910.			1909.
	January.	February.	March.	March.
Australian Combing:				
Choice . . . . .	42 @ 43	42 @ 43	41 @ 43	42 @ 46
Good . . . . .	40 @ 41	40 @ 41	39 @ 41	40 @ 42
Average . . . . .	38 @ 40	38 @ 40	36 @ 37	39 @ 40
Australian Clothing:				
Choice . . . . .	41 @ 43	41 @ 43	40 @ 43	42 @ 43
Good . . . . .	40 @ 41	40 @ 41	39 @ 40	40 @ 41
Average . . . . .	38 @ 40	38 @ 40	37 @ 39	38 @ 40
Sydney and Queensland:				
Good Clothing . . . . .	40 @ 41	40 @ 41	39 @ 41	39 @ 41
Good Combing . . . . .	42 @ 43	41 @ 43	40 @ 43	41 @ 43
Australian Crossbred:				
Choice . . . . .	42 @ 43	40 @ 42	38 @ 41	40 @ 41
Average . . . . .	36 @ 38	35 @ 37	34 @ 36	34 @ 36
Australian Lambs:				
Choice . . . . .	42 @ 45	42 @ 45	42 @ 45	42 @ 46
Good . . . . .	40 @ 43	39 @ 42	38 @ 41	40 @ 43
Good Defective . . . . .	35 @ 37	35 @ 37	35 @ 37	35 @ 38
Cape of Good Hope:				
Choice . . . . .	35 @ 37	35 @ 37	35 @ 37	33 @ 37
Average . . . . .	32 @ 33	31 @ 33	30 @ 33	32 @ 34
Montevideo:				
Choice . . . . .	35 @ 36	35 @ 36	33 @ 35	32 @ 34
Average . . . . .	31 @ 32	31 @ 32	31 @ 32	30 @ 31
Crossbred, Choice . . . . .	37 @ 39	36 @ 38	36 @ 38	33 @ 34
English Wools:				
Sussex Fleece . . . . .	43 @ 44	42 @ 43	42 @ 43	40 @ 41
Shropshire Hogs . . . . .	42 @ 44	42 @ 43	42 @ 43	38 @ 39
Yorkshire Hogs . . . . .	37 @ 38	36 @ 38	36 @ 37	34 @ 36
Irish Selected Fleece . . . . .	36 @ 37	36 @ 37	36 @ 37	34 @ 36
Carpet Wools:				
Scotch Highland, White . . . . .	22 @ 24	22 @ 24	22 @ 24	18 @ 20
East India, 1st White Joria . . . . .	32 @ 33	31 @ 33	30 @ 32	26 @ 28
East India, White Kandahar . . . . .	26 @ 28	26 @ 28	26 @ 27	24 @ 25
Donskoi, Washed, White . . . . .	32 @ 34	32 @ 33	31 @ 33	28 @ 29
Aleppo, White . . . . .	32 @ 34	32 @ 33	31 @ 33	22 @ 24
Chiu Ball, White . . . . .	20 @ 22	19 @ 21	19 @ 21	18 @ 20
"    "    No. 1, Open . . . . .	20 @ 21	19 @ 20	18 @ 20	18 @ 20
"    "    No. 2, Open . . . . .	13 @ 14	13 @ 14	13 @ 14	12 @ 14

FOREIGN WOOL.

The demand for foreign wool during the first quarter of the year was more or less irregular. The top makers and manufacturers of men's wear goods have been exceedingly dull, and have scarcely been in the market for any

supply. Some manufacturers of women's wear worsted dress goods, however, have been very busy and have been the principal customers for crossbreds and fine staple foreign wools.

While the demand has been principally for quarter-bloods from 40/46s, there have been occasional purchases of 64s, and for a short time an inquiry for 36s.

Owing to the limited demand values of Class I and Class II wools have steadily weakened on this side until values now are probably below the cost of importation.

English wools have been in slight demand owing to the drop in price of domestic  $\frac{1}{4}$  and  $\frac{3}{8}$  blood wool. There have been occasional calls for South American crossbred, but the business in this article has been much below that of last year.

Cape wools have been entirely neglected. Carpet manufacturers apparently had been well supplied before the close of the year, and the only sales which have been made during the last quarter have been lots of wool which for some reason the owners have been pressing for sale and have disposed of at unprofitable rates.

All classes of wool abroad are firmly held, and there appears to be no indication of any weakening on either merino or low wools.

MAUGER & AVERY.

APRIL 6, 1910.



# BULLETIN

OF THE

## National Association of Wool Manufacturers

A QUARTERLY MAGAZINE

DEVOTED TO THE INTERESTS OF THE NATIONAL WOOL INDUSTRY.

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[No. III.

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### HYGROSCOPIC QUALITIES OF WOOL.

FURTHER EXPERT COMMENTS ON A TECHNICAL SUBJECT OF  
DIRECT PRACTICAL INTEREST TO MANUFACTURERS.

[IN the June number of the quarterly Bulletin of the National Association of Wool Manufacturers, Mr. Howard Priestman of Bradford, England, a distinguished writer on the textile art, presented an important technical paper, "Electricity, Humidity, and Yarn Condition." In the following article some significant critical comments on Mr. Priestman's methods and conclusions are made by Mr. William D. Hartshorne, a foremost authority in the United States on atmospheric conditions in textile manufacturing.]

From the discovery of the planet Neptune to conditions of wool manufacture may seem a far cry, but the method of this wonderful discovery contains a lesson which textile manufacturers need to learn, and that is their dependence for advancement in their art on a proper understanding of the fundamental characteristics of the materials they work with.

The ancient Chaldean astronomers were able to foretell the times of eclipses of the moon and sun, as a result of their crude methods of observation, several thousand years before Newton discovered the laws of gravitation and the laws of motion, which subsequent astronomers made use of to further

their knowledge of the world and its relation to the celestial bodies. So completely had mathematicians mastered the laws of attraction between bodies and the laws of motion that they were able to say that beyond the planet Uranus there must be another planet causing by its attraction disturbances or "perturbations" in the motion of Uranus. Almost simultaneously Mr. Adams, in England, and M. Leverrier, in France, entirely independently of each other, located in the heavens for a given date almost precisely where such a disturbing planet should be found, and the practical observer, Dr. Galle, one of the astronomers of the Royal Observatory at Berlin, on the 23d of September, 1846, received a letter from M. Leverrier announcing results of the latter's calculations; and requesting him to look for the disturbing planet in or near a certain accurately described position in the heavens. He did so, and on that very night actually found it, within about twice the width of the moon's disk from the spot indicated by Leverrier. Mr. Adams' calculations made entirely independently, but almost coincidentally, placed the position of this disturbing planet within a little over  $2^{\circ}$  of the position found by Dr. Galle.

#### "PERTURBATIONS" IN WOOL.

The practical manufacturer realizes the tremendous "perturbations" to which his materials are liable from conditions over which long experience has enabled him to exercise some control, but he should be very grateful to such men as Howard Priestman and Dr. Bowman for disclosing to him, so far as they have determined them, the fundamental natural laws which govern such perturbations, thus enabling him to foretell what will occur under certain conditions, and save him from the mortification and expense of unexplained "accidents." So long as an industry occupies no higher plane than that of a secret trade, like that which still is said to control the production of sealskin garments, and like that of the dyer's art, which until only recently was supposed to be dependent entirely upon alleged secrets of a trade, it cannot advance by such wonderful strides as has for instance the

iron and steel industry. Mr. Priestman's paper, therefore, should certainly be welcomed as a contribution having such an end in view, though careful consideration of some of the points which he raises will, I think, show an error at the base of them, which when corrected may throw light upon the problems which he confesses are not yet solved. The principles involved like the laws of gravity and the laws of motion are very simple but fundamental, and upon them, and against them, the industry has been beating its wings without much progressive flight for many years.

In Dr. Bowman's book, "The Structure of the Wool Fiber," published in 1885 — perhaps the most complete book of its kind on the subject — I find this paragraph, which I quote in part:

. . . It is also a noticeable fact that if we wet a lock of wool the curl is considerably increased, but if the lock is subjected to tension while wet, and allowed to dry, the curl is completely removed, because the fiber cells take a permanent set under the strain. The same may be noticed in the human hair, especially when it is long. This arises from the fact that the cells in the interior of the hair are more or less pervious to water, which, when it enters, swells them out in the direction of the diameter and diminishes the length. Upon this principle the hair hygrometer is constructed. When the air is filled with moisture the hair shortens in length, and when dry expands, and thus moves an indicator over a graduated arc, which roughly corresponds with the degree of moisture in the atmosphere.

It would seem that there could be no mistaking the meaning of this paragraph. That the author was not aware of any misconception or mis-statement of principle would seem to be evident from the fact that the same paragraph is repeated verbatim on page 231 of his revised book upon the same subject, printed in 1908. That Mr. Priestman may have been misled in his consideration of the subject by so high an authority as Dr. Bowman is, of course, possible, although it appears to be Mr. Priestman's habit of mind thoroughly to test statements and find out if they are true. But in this instance he seems to have neglected to verify

a fact which, wrongly conceived, is as misleading in its sphere as the ancient dogma that the sun and stars move around the earth, the refutation of which error nearly cost Galileo his life.

#### LENGTHENED NOT SHORTENED.

The simple truth is this: That both the individual wool fiber and the individual cotton fiber are lengthened and not shortened by increase of moisture, and when this fact is once understood many of the seeming vagaries in textile manufacture will be found to disappear, and an explanation found for the circumstances which have so disturbed Mr. Priestman in his study of the subject. This fact as far as wool or rather hair is concerned can be proved by the very reference which Dr. Bowman gives to the hair hygrometer. Any one can determine this for himself on examining such an instrument, where it will be clearly seen that the effect of the moisture in moving the hand is not to shorten the fiber, but to lengthen it, and it is of a truth upon that principle that the hair hygrometer is constructed. But for further proof attention is called to the photographic reproduction in the present article of a single wool fiber whose two ends have been fastened in a comparatively dry, taut state (Figure A). If the glass strip to which the fiber is thus attached be placed in a glass tube and moist air drawn through it, the fiber will at once take on the appearance shown in Figure B, and since both ends are securely fastened this can only mean that the fiber has been lengthened, and not shortened. If now dry air is drawn through the same tube the fiber at once reassumes the position A: a reverse proof of the same proposition. A cotton fiber treated in the same way exhibits exactly the same results, though to a far less manifest degree, and therefore less easy to represent by a photograph, and I have not attempted to do so, though any one can try the experiment for himself and observe the effect under a microscope.

#### THE CASE OF TWISTED THREADS.

This does not mean that the length of a twisted thread or cord, either of worsted or of cotton, may not be shortened

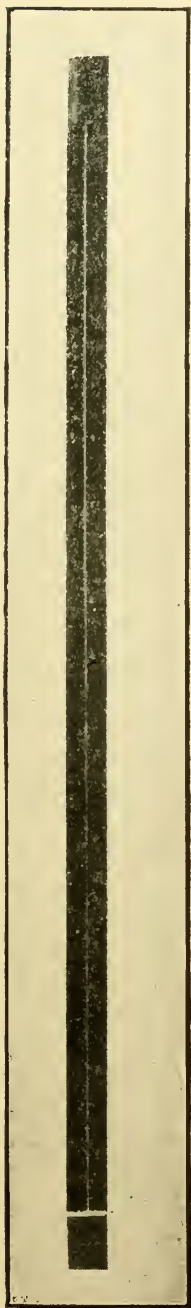


Figure A.



Figure B.



by wetting; in fact under certain conditions this is the usual result. In such instances this shortening is further increased by drying the thread (without tension), but if tension is applied, or the yarn prevented from further shrinking, the result will be a stretching and straightening of the fibers, such that the next time the thread is wetted it will be found to be longer. This phenomenon is illustrated on the ordinary cotton spinning band. It is well known that the first effect of a damp morning on a spinning band is to tighten it and greatly increase the power required to drive the frame, but when the band has become stretched by repeated effects of this kind it will soon become too loose. This effect is particularly noticeable on bands which are made of relatively hard twisted threads. A hard twisted worsted thread manifests this contraction under moisture to a far greater degree than does a cotton thread, and when the individual fibers are long, and especially when some are short and others are long, this effort for the individual fiber to lengthen — whether short or long — and which the twist tends to prevent taking place within the thread, causes the fibers to buckle, and to get out of their confined position; and the longer the fiber the greater the total effect of its individual expansion in forming the resultant loop on the surface of the twisted thread. The drying of the thread now again tends to shorten both the fiber and the thread, for the bulging fibers cannot of themselves return to their original position. If the thread be wetted again and put under tension there may be some slippage of the fibers among themselves (which further drying under such tension emphasizes), and the thread may be left comparatively smooth.

#### CONDITIONING OF YARN.

Mr. Priestman's observations in regard to conditioning yarn when the fibers are in a position free to loop, especially when such conditioning is unevenly done (as he shows plainly must generally be the case when quickly done), are well deserving of the careful consideration of manufacturers, for such effects are well known to them, but if this simple principle

above referred to be examined into I think Mr. Priestman will agree that it accounts for all the troubles and unexplained effects of this class which he and other manufacturers have found. It is extremely interesting to note his comments about leaving yarn unconditioned. He is here evidently referring to single yarn as it is spun on bobbins ready to weave, and I fully agree with him, but let us see what his statement means.

On page 131 he notes the fact that in the worsted district of England the top, as delivered to the spinner, usually actually contains about 19 per cent (regain) of moisture,\* and it is apparent that in the spinning mills to which he has been accustomed the regain condition probably does not exceed 13 per cent. These conditions will undoubtedly produce good spinning if the material has not been allowed to dry below the latter figure during the processes from the drawing to the spinning frame, and where such conditions have been maintained it has been the writer's experience that no electrical effect in the stock is manifest, nor do the fibers for other reasons tend materially to separate from each other, and thus produce uneven yarn in the processes of drawing and spinning.† In other words, the conditions for good drawing and good spinning are that the fiber must be tending to lose moisture rather than absorb it, and thus maintain a tendency to shorten, or keep straight, and within the twisted sliver. To deliver yarn on the spinning bobbin at the English standard of humidity can, in the writer's opinion, be properly accomplished only by starting the operations on a higher plane, in order to maintain this losing condition, but this involves other, serious difficulties. With the present conditions of mill construction

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\*It is not the purpose of these comments to go into the question which he raises by the statement: "Beyond that limit nothing but the mechanical application of water or super-saturated atmosphere will increase the weight further." This is certainly an erroneous statement, which Mr. Priestman could easily verify for himself. Since the publication of the author's paper upon this subject, in 1903, further experiments have not only demonstrated the general principle of the statements made there, but have brought out a more exact determination of the law, and the actual regain percentages of wool at different temperatures and relative humidities.

†The beard effect on high speed cap yarn, long-stapled wool, to which he seems to refer, is the effect rather of centrifugal action than of either moisture or electricity.

and weather conditions in this country, regardless of artificial humidifying possibilities, on the Bradford system of spinning and drawing, so far as the writer knows this has not yet been found practicable. There are some spinners of French spun yarns, however, who seem to have succeeded very well in this respect, but this is another story.

#### ELECTRICAL EFFECTS.

On the question of the production of electricity in the spinning or drawing process, as already stated, the writer has never found any trouble, or any appreciable effect — no matter which way the wind blows — when mill conditions are maintained, with a sufficient degree of atmospheric moisture to dissipate such effect, provided the top itself started with enough moisture to permit of a losing condition through the several processes. It might be noted, however, that the question of electrical effect has been studied in this country, and an apparatus devised for its perfect control, and for other purposes than textile manufacturing I understand has been profitably applied. I have been told that it has been found effective and beneficial under some conditions of textile work at the Philadelphia Textile School and elsewhere. It is interesting to note, however, that the inventor of this apparatus, Mr. Chapman,\* does not agree fully with Mr. Priestman in his explanation of the cause and method of production of the positive state in the worsted thread which, as Mr. Priestman correctly says, is only noticeable after leaving the front rolls of either the spinning or drawing frame, but that such effect as does show is not caused by the movement of the fibers upon themselves during the drafting process (however manifest this effect may be when pulling apart a sliver of top) may be proved by the simple experiment of lifting the back roll and allowing the full size roving or drawing sliver to pass through the front rolls undrawn, in which case, if the conditions of the room are such that an electrical effect will be found by the electroscope, or be otherwise visible, it will

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\* W. H. Chapman, Portland, Me.

appear equally as strong in this undrawn sliver. In other words, it is the mechanical percussion of the non-conducting cover of the top roll which causes the effect, and not the movement of the fibers upon themselves. The writer has not as yet verified the above electrical effects alleged by Mr. Chapman, as there have not been weather conditions suitable for the test since the question has arisen.

The electrical conditions mentioned on page 133, paragraph 4, "Frost with an east wind" (it would be a west wind here) are perhaps conceivable even "in a much humidified atmosphere," provided the top were *sufficiently* dry, but many years ago the writer had no difficulty in converting a good spin into a tremendously bad one on the Bradford system, when the top was in the ordinary condition, by putting too much heat and moisture in the room: an effect, indeed, was easily produced so great that a half a dozen spinners could not keep up the ends on one side, but without the slightest evidence of electrical action.

WILLIAM D. HARTSHORNE.

Arlington Mills,  
Lawrence, Massachusetts.

## TRADE ORGANIZATIONS.

THE ADDRESS OF MR. FREDERIC S. CLARK, OF THE TALBOT MILLS, BEFORE THE LOWELL TEXTILE SCHOOL.

AT the recent graduating exercises of the Lowell Textile School, Mr. Frederic S. Clark, the President and Treasurer of the Talbot Mills and one of the Vice-presidents of the National Association of Wool Manufacturers, delivered an important address on the theme of trade organizations. Mr. Clark said:

I have been a trustee of the Lowell Textile School from its incorporation and it is needless to say that I have always felt a very great interest in the school and in the success of its graduates. There was very much need of an institution of this character and I regard its rapid growth as little short of phenomenal. Few people not familiar with the matter appreciate the difficulty in launching and establishing on a firm foundation such a school as this. Instructors for high schools, colleges, and general technical schools grow on every bush, but competent textile teachers are very hard to find, in fact they could not be found at the outset. First, because the men who were competent from the standpoint of their experience and technical knowledge were not competent from the standpoint of ability to impart their information to students with clearness. Of course, none of them had given thought to any systematic course of instruction. Second, because these capable, practical men were in much more lucrative positions than the school could offer them. This latter reason required us to find men who had sufficient interest in the cause and pride in being a factor in its development to sacrifice personal considerations, and the first reason simply meant that these men had to acquire by experience and hard work the faculty of teaching and the ability to prepare a course of study.

I am glad at this time to express my great appreciation of the tremendous labor and long hours which our instructors



have freely given and the sacrifices which they have made in bringing the school to its present high standard. We are now in a position to train teachers, as is evidenced by the graduates who have gone as heads, or as instructors, to other schools, or have taken positions with us. Those of you who were among the earlier graduates doubtless appreciate the much greater opportunities now afforded by the school and perhaps envy the good fortune in this respect of recent students.

As a member of the Board of Trustees, I welcome most heartily the representation of the Alumni on the board and I look for great benefits to the school from this step. With the experience which you have gained as students, supplemented by experience in business, your judgment as to courses of study, equipment and instructors should be of the greatest value. Speaking as a manufacturer, and for manufacturers as a body, we feel the great need of technically educated men for the important positions in our factories. Many of us, I think I am safe in saying the majority, are not so educated. Our education and experience are more along the mercantile side of business and for this reason we look up with the greatest respect and admiration to the specialists, the experts, to those who are technically trained in our respective industries. We want and need their assistance in conducting and developing our business. In saying this I do not want to set you up too much. Graduating from a textile school with a diploma does not necessarily qualify a young man to immediately take an important position in a mill, in fact I think it is much better for him to get considerable practical experience in subordinate positions first. Contact with practical work and its details, and particularly with the employees, will in the end make a much more valuable man of him and give the head of the business more confidence in him and to the young man more confidence in himself when he in turn becomes the head. The general manager of a business looks for these traits in his subordinates:

1. Character with all that the term implies.
2. More than perfunctory interest in their work.

3. Accuracy in their work and accuracy of statement in regard to it.

4. Reasonable speed in performance.

5. Such attention to orders as will enable the manager to dismiss from his own mind an order or a suggestion with confidence that the matter will be speedily attended to and a report made if one is necessary.

6. Ambition to do more than simply execute orders. The man who does well what he is told to do is a more or less valuable man, but he must do more than this if he is ever to rise beyond an ordinary position. He must think about his work and be fertile in suggestions that will be of value to the business if he would advance to a position of prominence and value.

Some of you have attained such positions already that you will appreciate the need of all of these traits in the men under you. I mention and emphasize them for the benefit of those who are just beginning their manufacturing career, or are not yet far advanced. We often hear of the opportunity which comes to one man and the luck which brought it. It is true that some men are more fortunate than others in this respect, but nine times out of ten those who envy others their opportunity and complain of the hard luck they have had themselves do not avail themselves of the every day opportunities to prepare for the larger ones that may offer and so are passed over when the grand opportunity does come.

I am announced on the programme to speak on trade organizations. I am a great believer in organizations for the purpose of conserving and advancing the interests of individual trades and, as most of you will eventually be prominent in some one of our business or manufacturing industries, it is a matter in which I should like to interest you. Individual firms or corporations can do very little to influence trade customs, and conditions, public opinion, and legislation, or to secure the enforcement of laws. For most purposes our very large corporations, like the United States Steel Corporation, do not need to associate themselves with others, — they are strong enough in themselves, — but for all others there is not only

strength in union, but nothing can be accomplished without it. Some concerns always hold aloof from trade associations and take pride in their independence, but to my mind it is not a justifiable pride, and they simply derive benefit from the good work of the associations and contribute nothing, either in the way of suggestion or subscription, to the expenses. There are many trade associations in the textile industry, but I shall confine my remarks to The National Association of Wool Manufacturers and The American Association of Woolen and Worsted Manufacturers.

The National Association of Wool Manufacturers, the oldest organization in the woolen industry, was founded in November, 1864, and has been active and influential up to the present time, a period of forty-five years. It has always been representative of the industry, and to-day nearly one-half in point of productive capacity of our woolen and worsted manufactures, not including carpets, are enrolled in its membership. Among its noted presidents may be mentioned Erastus B. Bigelow, J. Wiley Edmands, treasurer of the Pacific Mills, Rufus S. Frost, and William H. Haile, woolen manufacturers; Charles H. Harding of Philadelphia, worsted yarn manufacturer, and William Whitman, president of the Arlington Mills.

Mr. Bigelow was the most prominent figure in the organization and may be considered its founder. He was a man of most remarkable ability in many directions, but probably he is best remembered as the inventor of various power carpet looms. He saw very clearly the necessity of united action and in his first report stated the principal objects of the Association in these words:

1st. "That the association should make itself a source of information, so that the heads of departments at Washington, committees, and members of Congress, when about to report or legislate on matters connected with the woolen manufacture, will avail themselves of the information which it will be in our power to impart, and which is not likely to be accessible through any other channel."

2d. "The opposition of interests which has sometimes

been thought to exist between men whose pursuits are different and yet allied, as between those, for instance, who grow the raw material and those who manipulate it, is, I believe, always imaginary and cannot fail to disappear under a careful consideration of principles and facts. So far as our society, by its action or by its bearing, shall contribute to the removal of misapprehension and prejudice, the result will be gratifying to us all."

This statement referred to the lack of sympathy, even antagonism, which had previously existed between the wool growers and the manufacturers. A conference was held in December, 1865, between representatives of these industries, which resulted in resolutions recognizing their inter-dependence and pledging mutual aid. This union of interests became effective in the tariff bill of 1867, which recognized that it was of the highest importance that this country should be as little dependent as possible on a foreign supply of materials for clothing its people and that wool and its manufactures were entitled to such protection as would accomplish these results. It was also recognized that to woolen manufacturers a double duty was necessary; one to compensate for the duty on wool, thereby placing the manufacturer on the same basis as his foreign competitor having free wool, and another to protect him against lower manufacturing costs abroad. This double duty is understood by very few persons outside the industry and gives rise to the erroneous impression that woolen and worsted goods are protected to such an extent that prices are excessively high and that great fortunes are made in the business. This principle of a compensatory duty first appeared in the Morrill tariff of 1861, but the wool growers and wool manufacturers were first brought into harmony by the resolutions of 1865, to which I have referred. This harmony has continued to this day. I do not mean by this that the National Association has not at times opposed some of the duties asked for by the wool growers, but it has consistently conceded their right to adequate protection, and they in turn have conceded the right of the manufacturer to full compensation for whatever wool

duty might be imposed. The protection of the interests of the industry at times of tariff revision has been one of the chief objects of the association. It has sought to do this by legitimate means only, whatever may be said to the contrary. It has been absolutely necessary for the committees of Congress charged with preparing tariff bills to get information in regard to our complex industry from those engaged in it and it is absurd to criticise them for so doing. The National Association has supplied this information in the greatest detail. The matter placed in the hands of the Ways and Means Committee during the late revision fills a book of 270 pages and this book is a mine of manufacturing and other information which will be invaluable to woolen and worsted manufacturers in the future.

Schedule K of the tariff bill covers wool and woolen manufactures and has been widely assailed as one of the iniquities of the Payne-Aldrich Bill. I was on the Tariff Committee of the National Association during the consideration of both this bill and the Dingley Bill, and so am familiar with both. I think I could give you a much more interesting talk on this subject than on trade organization, but it would be a lengthy address and I can only make this passing reference to it. The wool and woolen schedule is probably as complicated and difficult to make and to understand as any in the whole bill and, as I have said, it is very imperfectly understood except by those who have made a careful study of the matter. I have no hesitation in saying that the charges which have been made against it as to its effect on various branches of the industry, on the quality of the product, and the cost of the same to the people are to a great extent unjustifiable and untrue.

The association publishes a quarterly Bulletin which, in addition to articles of general interest to the trade, gives all tariff decisions of importance affecting wool and woolen importations made by the Board of General Appraisers, the Treasury Department, and the Courts, also the importations of wool and woolen manufactures. The Bulletin has now been issued for forty years and constitutes an



invaluable history of the woolen and worsted industry. A Wool Review is published annually giving in greatest detail the production of domestic and foreign wools, the importations of wool and goods, the domestic consumption of wool, the fluctuations in prices, etc. There have been manufacturers outside the National Association who from time to time have opposed its tariff policy, but their propositions have not prevailed and this association remains, in its field of action, after a life of forty-five years, the most consistent, influential and, in my judgment, the most beneficial for our trade.

The American Association of Woolen and Worsted Manufacturers is comparatively young, having been organized in February, 1907. Its objects are entirely different from those of the National Association and are stated in its constitution as follows:

“The object of this association shall be to promote the interests of those persons, firms and corporations engaged in the manufacture and sale of woolen and worsted woven fabrics in the United States of America; to coöperate for the improvement of all conditions relating to the industry; to regulate and correct abuses current in the trade; to secure freedom from unjust or unlawful exactions; to interchange information relating to credits and standing; to establish uniformity and certainty in the customs and usages of said business, and to promote an enlarged and friendly intercourse among its members, and with those with whom we have dealings.”

While this association has many activities, its prime object is to prevent abuses and bring the seller and the buyer into such relations that differences may be speedily and fairly adjusted without recourse to law. Previous to the formation of the association business conditions were anything but satisfactory. An order to manufacture goods meant something or nothing according to the degree of business honor of the buyer. In very many cases if goods could be bought at a lower price or a price that pleased the buyer better, or his sales of clothing did not come up to his expectation, he had no hesi-

tation in cancelling his orders, even if the goods were in process, or finished, and leaving them on the manufacturer's hands. Again, if goods had been actually delivered on contract and the buyer found that he had over-bought, or had selected bad styles, the examiner or sponger for the buyer would be directed to claim enough defects, such as cockling, shaded colors, imperfections in weaving, light weight, over weight, excessive shrinkage in sponging, poor finish, etc., to cause the rejection of the goods. If the buyer really wanted the goods, in order to lower their cost he would make excessive claims for imperfections, and even after the goods were made into garments all sorts of claims were made, such as warp and filling threads slipping, colors changing with pressing, lack of strength, etc.

Do not understand me as making the assertion that all buyers of woolen and worsted goods indulge in these practices. The National Association of Clothiers is a very large and influential organization of manufacturing clothiers and its officials are men who would not countenance unfair business practices, in fact they were organized for the purpose of preventing abuses in their trade. They have joined most cordially with the American Association of Woolen and Worsted Manufacturers, as I shall show presently, in efforts to place our business relations on a higher plane.

The first officers of the American Association were indefatigable in placing the organization on a firm foundation and they are well deserving of mention. The first president was Joseph E. Fletcher of Providence; vice-presidents, John P. Wood of Philadelphia, Louis B. Goodall of Sanford, Me.; secretary, Charles Porter, Jr., of Philadelphia; treasurer, Arthur M. Cox of New York.

The association has an office in New York with an executive officer, called the actuary, who has ample clerical assistance. The board of directors meets here as often as may be necessary, and the executive committee, a smaller body, meets frequently. There is also what is called the joint committee of manufacturers and clothiers, consisting of seven from each association. Two meetings of the whole

association are held per year, at which reports are made, action taken, and new measures discussed and adopted.

The association now has an active membership of 139 manufacturers running 11,663 broad looms and 3731 narrow looms; an associate membership of 48 selling agencies. The membership, as you will see, is large and it is steadily growing, and the association through the following actions has been an influential agent in correcting many of the trade abuses to which I have referred. Action has been taken on a great variety of subjects, most of which I will mention by title only and then take up the most important:

1. Uniform Order Blank.
2. Limitation of free selling samples.
3. Determination of free delivery points.
4. Right of manufacturer to replace rejected goods.
5. Definition of the trade terms — As Are, Seconds, Unmerchantable, and No Claim.
6. Credit Bureau.
7. Collection Agency.

Naturally the most important work has been that providing for the settlement of trade disputes, and the course that these cases take is as follows:

If the buyer makes claims, or rejects goods, for reasons which our member considers unjust, the latter can first call for an examination by the association adjuster, one having been appointed for each of the principal markets of the country. If a satisfactory adjustment cannot be made after his report, the case may be carried to the actuary, who hears both sides, consults the executive committee, and frequently a settlement is recommended which is agreeable to both parties. If this fails, and the case is a large one, arbitrators may be appointed, and the joint committee of manufacturers and clothiers have adopted rules for their guidance which are intended to insure a settlement on a just and impartial basis. Plans are now being discussed by the joint committee for the joint appointment of one or more official examiners in each leading market, with the idea of

providing a final court for the more speedy settlement of disputed claims.

It will be seen that all of the above methods of settlement have been provided with the idea of avoiding the necessity of legal proceedings with their loss of time, expense, and interference with pleasant business relations.

Let me say that the association never intends to support a member in any indefensible action on his part, and if he is found to have failed in any way in the filling of an order, he is not protected against justifiable claims on the part of his customer.

The following statement will show the value of the association work in this matter of claims and cancellations :

Number of cases considered,	731
Number adjusted,	611
Number settled in favor of members,	435
Number settled in favor of customers,	53
Number withdrawn on account of insufficient evidence or at member's request,	123
In course of settlement now,	120

Of the above 611 adjusted cases, 76 were settled by arbitration.

The association instituted a little more than a year ago an investigation into the methods of cost figuring among its members. This developed a most astounding lack of accurate methods on the part of a great many, and led to an exhaustive investigation and report in print by a cost committee. It will be readily seen that it is of the greatest importance to all concerned that cost figuring should be accurate. The man who figures his cost too low will sell his product out of sight and is a dangerous competitor to all others ; the man who figures his costs too high is left high and dry in the selling of his product.

One year ago the association adopted the practice of hearing papers upon important manufacturing topics at the annual and semi-annual meetings, and these papers have been of great interest and value.

This association has accomplished much that is important to the industry, and as it grows in strength it will have a still greater influence in this matter of trade abuses.

In closing let me urge you to ally yourselves as the opportunity offers with the trade associations of your respective industries, and to bear your share of the burden in advancing their interests. I congratulate you on being members of this Alumni Association, and I trust that the technical education which you have received in the Lowell Textile School has assisted in selecting and successfully launching you on your life careers. Let me also hope that you will make such choice of your representatives for the Board of Trustees that the high anticipations which I have expressed of your good influence on the future welfare of the school may be fully realized.



## JAPAN'S INDUSTRIAL DEVELOPMENT.

THE ISLAND KINGDOM FAST BECOMING A MANUFACTURING POWER AND A COMPETITOR OF EUROPE AND AMERICA FOR THE MARKETS OF THE WORLD.

THE oft-quoted expression, "Westward the course of Empire takes its way," is not merely poetic fancy but is an accurate description of a great historic movement which for centuries has been overleaping land and sea in its progress toward the West. This empire is of commerce, not of royalty, and its power comes not from the dynasties of sovereign families but from the dynamics of trade. From Damascus, Carthage, Athens, and Rome, it has swept through Spain and England, across the sea to the American continent and overland to the shores of the Pacific.

Will the seat of commercial empire once more move back to the far East; having run its course to the westward, is it to be reëstablished in those eastern countries where trade flourished when America was a wilderness? Over 800,000,000 of the 1,500,000,000 inhabitants of the globe live in Asiatic countries. They are no longer like nations asleep. The booming of Japanese guns at Port Arthur, Mukden, and the Sea of Japan convinced the world that the Mikado's kingdom, at least, is very much awake. It is there on the island kingdom of Japan, whose doors Commodore Perry opened to the trade of the world fifty years ago, whose rank among the foremost nations was won only six years ago by the prowess of her armies and the valor of her fleets, that we are destined to see during this decade the most astounding commercial and manufacturing development which the next few years will chronicle in any part of the globe. It was by her fighting qualities that Japan established her place as a world power. She is determined to win an equally high place by her commercial and manufacturing enterprise. Already she has cut into the trade of British ships in the Orient and has practically driven the American flag from the Pacific.

Compared with the domain of Russia or the area of the

United States, Japan is small indeed. Composed of six hundred islands, many of them rocky and barren, Japan consists of only 140,000 square miles, less by 5000 square miles than the State of Montana, and Montana's population is only about 245,000. The State of California, with less than 2,000,000 inhabitants, contains 158,000 square miles. On the six hundred islands of Japan there are over 50,000,000 people. These islands are of volcanic formation, and only 10 per cent of the land can be used for agricultural purposes. This means that 50,000,000 people have been dependent upon 14,000 square miles of land of their own suitable for agriculture. There are 11,500,000 acres of land in Japan capable of cultivation, with 50,000,000 of people to be fed. The United States with 80,000,000 of people has 415,000,000 acres now occupied for farming purposes. Japan has about one acre of cultivated land for every five inhabitants. We have over five acres of cultivated land per capita. The farming land of Iowa or of Kansas is three times in area the farming land of Japan. To feed the population of Japan it was necessary to keep argosies laden with foodstuffs sailing over the seas. Wheat was brought from the United States, rice from British and French India, beans and other vegetables from Manchuria and Korea. It is not surprising that Japan looked with longing eyes upon the 360,000 square miles of Manchuria and the 82,000 square miles of Korea, where ample agricultural land could be found to supply the needed wheat and rice and vegetables for food, cotton for her factories, and grazing lands for flocks of sheep, and the world will not soon forget the dash and brilliancy and vigor of the war waged against Russia for possession of those lands.

It is important for us to realize that Japan has begun to make preparations to enter into active competition with other countries in the trade of the world, and is proceeding with that clear vision, determination, and vigor with which she prepared for war. Japan did not reap all of the fruits of victory for which she hoped, but she has established herself in Manchuria and to-day Korea is hers. Hon. Duncan E. McKinlay, a member of the House of Representatives from

the State of California, in a speech in Congress during the latter part of May, relates an interesting incident in this connection. "While in Yokohama," he said, "I was the guest of a Japanese colonel, home from Manchuria on a furlough. This was at the time of the armistice between Japan and Russia. This colonel took me down to the wholesale quarters and said, 'Mr. McKinlay, in that warehouse we have thirty American flour mills.' I said, 'What are you doing with them?' He replied, 'As soon as the war is over we are going to take those American flour mills over and put them up in Manchuria and grind the Manchurian wheat which has been piling up during the campaign.' I said, 'Well, I suppose you had to buy at least thirty American flour mills from the United States, did you not?' He said, 'Oh, no, we buy one flour mill in Milwaukee, and we make twenty-nine more just like it.' And those flour mills have been placed in position in Manchuria; they are grinding the Manchurian wheat to-day, and if you will go back to your reports you will find exports of wheat to the Orient being displaced by those American mills made in Osaka, Japan, and furthermore, you will find that our flour trade with Asia has gone; in fact almost all of our Asiatic trade is gone. We are sending Asia little more than petroleum products and a small supply of cotton."

In this speech Mr. McKinlay also said that Japan is turning Korea into one great plantation. She has thousands of acres of land under cotton culture, for she is experimenting with every kind of cotton of which the world has knowledge, and already the cotton plantations of Korea are producing raw cotton for the mills of Japan. To-day there are over 400,000 cotton operatives in Japan. Three or four years ago Japanese agents visited American factories and purchased four hundred cotton machines. They took one of those machines into their machine-shops and duplicated it by the thousands at a far less cost than they could be sold for in this country, and those machines are now turning out cotton fabrics for the eastern markets which formerly looked to England and America for their supply. To operate similar

machines, there is the vast supply of labor among the 50,000,000 of Japan, the 450,000,000 of China and the 200,000,000 of India, at a wage scale of from six to thirty cents a day, with twelve hours for a working day. That is the kind of labor, says Mr. McKinlay, that "is already pouring its products not only into the markets of Asia, at half the price of the American production, but large shipments of every kind of cotton cloth and cotton articles are being sent in every ship that arrives from Japan into the port of San Francisco, paying the duties and still underselling American cotton products all over the Pacific coast." That Japan is beginning to reap the rewards of her enterprise is evident from the report of the profits of her cotton industry. The aggregate net profits of the cotton manufacturing companies of Japan for 1905 were \$6,500,000 gold; 1906, \$7,500,000; 1907, \$8,000,000, or an average of over 40 per cent on the paid-up capital in 1905 and 1906 and over 30 per cent in 1907. Owing to a general business depression throughout the world in 1908, there was a falling off in that year in the cotton profits as in other lines of trade, the total foreign trade of Japan showing a decline in that year of nearly \$23,000,000.

Cotton goods were among the first to respond to the improvement in trade conditions, and a swift revival occurred in 1909. In a circular under date of May 19, Noel, Murray & Co. report that "shirtings and sheetings were exported to the amount of 55,000,000 yards, against 40,000,000 yards in 1908, and drills 27,000,000 yards, against 16,000,000 yards in the same period. This year the exports show a still greater increase, the amount for January and February being 8,398,404 yards of shirtings and sheetings, against 8,306,287 yards in 1908, and 5,605,964 yards of drills, against 2,972,200 yards in 1908. This authority states that the number of looms running in Japan in October of last year were 11,625. Later advices give exports for March of 6,314,418 yards sheetings and shirtings, against 4,520,156 yards in 1908, and 4,216,018 yards of drills, against 2,355,722."

The British Empire has the largest share in the total trade

of Japan, having sold to Japan in 1907 goods to the value of \$20,800,204, or 41 per cent of her imports and, taking 17 per cent of her exports. Second in total trade is the United States, although this country is first in imports from Japan, our imports of Japanese goods in 1907 being the greatest in value which any country had ever taken in one year from Japan. Japan's total foreign trade in 1907 amounted to £94,619,022, of which £50,476,875 were imports and £44,142,147 were exports. The excess of imports over exports was £6,334,728. At the port of Yokohama the leading import in 1907, as given by the American Consul, was raw cotton. Its value was \$7,169,049, against \$4,581,588 in 1906. The next import of importance was raw wool. Its value was \$5,287,615, against \$3,183,024 in 1906. Of considerable significance are the import duties collected by Japan, which have increased greatly since 1903, and the average ad valorem rate which has nearly doubled within five years, as shown by the following table:

Year.	Amount of Duty Collected.	Average Ad Valorem Rate.
1907.....	£4,793,792	15.28
1906.....	4,208,938	14.66
1905.....	3,501,307	11.66
1904.....	2,094,743	9.84
1903.....	1,671,310	9.71

Japan has for some time shown a particular sensitiveness in regard to the excess of imports over exports, and the steady increase in the ad valorem duties is one of the means employed to reduce importations and to give the native manufacturers a larger share of the home market. The preparation of the Japanese people to manufacture their own goods and make enough besides for export has been progressing for a number of years. The custom of sending government agents abroad to study industrial and manufacturing conditions began in 1896, when twelve clever Japanese were sent to other countries on a mission of investigation. In



1906 the Government had eighty-five such agents studying conditions abroad. The thoroughness of this investigation is shown from the fact that among the countries visited were the United States, Germany, England, France, China, South America and Australia. It was from such investigating tours that the American flour mills now being used to grind Manchurian wheat, referred to earlier in this article, were obtained. Among other instances of this kind, as related by Representative McKinlay, is the experience of a manufacturer of electric-light and gas-light fixtures. "A couple of years ago," this manufacturer told Mr. McKinlay, "a Japanese came to my place of business and bought two dozen of my best patterns. I was glad to make the sale, but now these patterns are being shipped back into the United States in great quantities from Japan. They are paying the duty; they are underselling me, and I have been compelled to close that part of my business and the mechanics who made them have been compelled to resort to other means of making a livelihood." Another man, a manufacturer of theatre chairs, sold some of his chairs to a Japanese and they are now coming back from Japan and underselling the American article. Railway ties from the forests of Manchuria are being brought in the subsidized Japanese ships and sold on the coast of California at twenty-six cents apiece less than railway ties, cut by American labor in the great redwood forests of California, can be bought for. A German knitting machine has been improved upon in Japan, and five or six of these Japanese-made machines can be purchased at the price of one German machine. Japanese knit goods are flooding the eastern markets. Of the total import of knit goods to India about 60 per cent is from Japan, and trial exports of socks, shirts, etc., have been sent to Egypt with satisfactory results. In 1907, to aid in the sale of kerosene among the Chinese, the Standard Oil Company had made in the United States a large quantity of small brass lamps to be distributed at or below cost. These were shipped to their various agencies and ordered sold at seventeen cents Mexican or about seven cents of our currency. For that sum the

Chinese received a small brass lamp that would hold half a pound of oil and give a continuous light for fourteen hours, a glass chimney, and a wick. The Japanese have now duplicated these lamps, are manufacturing them in large quantities, and are filling the market with them.

These incidents, which might be multiplied, give some idea of the competition which the older manufacturing centers will have to meet when Japan's enterprises and industries become thoroughly established. So far only a fraction of the possible productive labor has been employed under modern industrial conditions. The Japanese have shown that they are as good imitators as the Chinese. They have the power of adaptation developed almost to the point of genius. They have yet to demonstrate that they have an inventive capacity equal to Americans, or those solid Teutonic traits which have made the German empire so great a power in the world of commerce.

The Japanese, of course, have some inventive faculty, and they have shown that they can grasp an opportunity, face a difficult situation, and stand by their guns with Teutonic stubbornness. The machinery which is used in one of their violin factories, where 8000 instruments are annually turned out at a price from \$1.25 to \$60 apiece, is of their own invention, and so is most of the tea-firing machinery used in Japan. The Japanese are now making for home use, and exporting to China, cotton gins, printing machines and power looms. These may at first be more or less clumsy imitations of foreign machines, but they show that Japan is not afraid to undertake herself what any other nation has tried to do. It is conceded that the Japanese are clever in thinking out and executing labor-saving contrivances, but their labor has not yet acquired the skill or precision achieved in other countries by generations of artisanship. Some critics speak very disparagingly of Japanese labor, declaring that "the average Japanese is not only a rather poor workman, indifferent to his own incompetence and destitute of ambition to remedy it, but he has little notion of the value of time—a vital deficiency in the modern struggle for supremacy." This critic,

Mr. Thomas F. Millard, in his volume, "The New Far East," claims that a Japanese economic authority has estimated that as compared to American skilled workmen the ratio of Japanese efficiency in labor is about one to four. The American artisan has had years of training, the Japanese are merely beginners at the work. That the advantage is with us now is conceded, but it will not do to underestimate a competitor so resourceful, so determined, so clever as the Japanese. They valiantly fought their way to the front in war; they will not content themselves with a subordinate place in the trade of the world. The Japanese workman may give the world before long a surprise as great as did the Japanese soldier.

The Government of Japan is in this fight and it is on the side of progress, of efficiency, of industrial expansion. It instructs labor and encourages capital. It does not penalize enterprise nor punish success with fines and imprisonment. It has steadily raised its custom duties to protect its manufacturers. It spends \$6,000,000 a year in subsidies to Japanese ships to enable the product of its mills and factories to reach the markets of the world. In the words of Representative McKinlay: "Those ships sail to Australia, to South Africa, to South America, to buy wool, hides, and lumber, and various other raw materials. These raw materials are taken back into Japan, and the Japanese Government under the ship subsidy system practised, pays one-half the freight on the raw material going into Japan. The Japanese mills work up that raw material, and again the subsidized ships carry out the manufactured product to find a market in every port of the world. There are six lines of steamers now from Japan to the coasts of America — one to South America, one to Panama, one to Mexico, one to San Francisco, one to Puget Sound, and one to Vancouver — and in addition to these a Japanese company is now perfecting plans to put on an express line of 23-knot passenger steamers from Yokohama to the port of San Francisco, and through this means absolutely absorb the little balance of American trade in the

Pacific. America is being driven from the Pacific by her little protégé of a half century ago."

After 1911 Japan will recover her tariff autonomy and will be in a position to protect her industries by still larger duties and devise other governmental means of fostering industry. The increase of her export trade will be her chief endeavor. No large increase can be looked for from agricultural produce. Her forests will contribute something, the export of timber, boards, and planks in 1907 showing an increase of 300 per cent over the preceding five years. The mines of Japan are not so rich as commonly believed, but she possesses coal in great abundance and has high rank among the copper producing countries. Gold, silver, iron, and lead are not abundant, and the output of petroleum supplies only one-third of the home demand. The seas around her shores are full of fish and seaweeds, and she has a large export of sea produce to China, but it is as evident to the Japanese themselves as it is to a foreign student of their affairs that any great advance in the productive capacity of the kingdom must come from her manufactured goods; not from her small area of agricultural ground, not from her mines of precious metals and of coal, but from the product of her abundant labor, from the family industries like mat-weaving, straw-plaiting, and match-making, from her porcelain and lacquered ware and the output of her mills and factories, which for several years have been springing up all over the country, but chiefly in the region about Osaka, which has shown such a great development in manufacturing that it is called "the Manchester of Japan." To equip these factories Japan has been making large importations of machinery, in 1907 such imports being valued at \$8,781,000, increasing in 1908 to \$12,007,000. Machinery in 1908 rose in value for the first time above Japan's great rice importation, exceeding this staple food supply by three millions of dollars. Machinery was the only import which increased in value in 1908, the decline of total principal imports being nearly \$23,000,000, or \$59,925,500 in 1908, compared with \$82,791,000 in 1907.

Some of this machinery will be put into woolen mills as

well as into cotton and silk mills. Since the war with Russia there has been a marked increase in the demand for woolen goods. Starting in 1904 the clothing requirements of the army kept the native woolen mills working to their utmost capacity, and the amount of wool imported was three times that of the preceding year, being 9530 tons. "The Diplomatic and Consular Reports of Great Britain on the Trade of Japan for 1904" thus speaks of the situation: "The requirements of the war exerted a particularly stimulating effect upon the woolen and cotton mills. These years have been so prosperous that many mills have planned important additions to their establishments. Six of them are reported as having set up 1800 new power looms, an addition to their capacity of nearly 50 per cent. It is very possible that for some time to come the imports of fancy textiles will not be materially affected, but in the cheaper cottons and woolens British manufacturers must be prepared not only for the loss of the Japanese market, but also, what is more important, for keen Japanese competition in China." The output of the native mills has increased each year and the local market has been supplied largely by the home manufacturers. The British manufacturers are warned not to expect any revival in the demand for foreign goods. Because the exigencies of the war required more blankets and blanket cloth than Japan's mills could turn out, considerable quantities were imported to supply the extraordinary needs of the army, and the value of blankets imported rose from £17,000 in 1903 to £757,000 in 1904. Great Britain had practically all of this trade and also supplied large quantities of army cloth. But since the war the importation of textiles has fallen off, while the imports of raw materials have increased.

IMPORTS OF WOOL AT YOKOHAMA.

	1905.	1906.	1907.
Raw .....	3,062,762	3,183,024	5,287,615
Cloth, etc.....	4,947,365	4,136,988	1,813,947
Yarn.....	2,008,047	399,304	1,642,426



All of the evidence points to a great industrial awakening in Japan and a vigorous effort on her part to utilize the vast resources of her teeming population along modern lines of manufacturing, not only that the needs of the home market may be supplied, but that Japan may enter the markets of the world, overcome the excess of her imports, and turn in her favor the balance of her foreign trade. The British consuls on a number of occasions have called the attention of their manufacturers to the fact that Great Britain was sure to lose a large part of the cotton and woolen market which it had enjoyed in Japan and would find the mills of Japan competing with English mills for the markets of China, India, and Australia. Not only will this Japanese competition be seriously felt also by American manufacturers, but if Japan forces European products from the Orient, the manufacturers of Great Britain, Germany, France, and Belgium will seek every opportunity to secure a larger share of the American market and wrest the domestic trade from the American manufacturer.

This may appear a favorable opportunity to certain professional politicians, whose only interest at stake is the salary which they draw from the public funds, to agitate for lower tariffs and reduced duties, but the American manufacturer knows that with his foreign trade threatened and the surplus product of Europe and Asia clamoring for admission to our country, the day may not be distant when the vital question will be how much our tariff duties must be raised, not how much they can be lowered; "whether," in the words of Vice-President Sherman, "it would not be wise to protect a little better our own labor and industries instead of sending abroad our gold to pay cheap labor in foreign countries."

## Obituary.

### ROBERT LINCOLN LIPPITT.

AFTER failing in health for more than two years, as a result of a distressing automobile accident in which his intimate friend was killed, Robert Lincoln Lippitt died at his home in Providence, R.I., Sunday morning, June 26. Within a week prior to his decease he was able to ride out in his motor car, and his death came as a surprise. Mr. Lippitt was a son of the late Governor Henry Lippitt and a brother of former Governor Charles Warren Lippitt and Hon. Henry F. Lippitt. He was fifty years old and is survived by his second wife, who was Lillian Hanaford Blazo of Boston, and by one daughter, Mrs. Mabelle Bourne of Providence. In 1908 he resigned his position as agent of the Lippitt Woolen Company and retired from business.

Mr. Lippitt was born in Providence, March 22, 1860, and was the ninth child of Henry Lippitt and Mary Ann (Balch) Lippitt. He was descended from John Lippitt who came to Rhode Island in 1638, two years after its settlement by Roger Williams, and was the first person of that name to come to America. Robert Lincoln Lippitt received his education at Mowry & Goff's School in Providence, and St. Mark's at Southboro, Mass., and entered Brown University in 1878, but left after one year to enter business. The next three years were spent in a woolen factory, where he worked his way up from the lowest rounds. Then knowledge of the selling end of the woolen business was gained by connection with the commission house of Walkenshaw & Voigh of New York. In 1889 he became agent and manager of the Lippitt Woolen Company, a position which he held until his retirement in 1908.

Mr. Lippitt was a director of the Manville Company and of the Providence Opera House Association, and was secretary and treasurer of the Conanicut Land Company. He was a charter member of the Rhode Island Automobile Club, and one of the commissioners of the Vanderbilt Cup Race. He was greatly interested in motoring and yachting, and was a member of the Rhode Island Yacht Club, the New York Yacht Club, and the

Pawtuxet Yacht Club. He was a member of the American Association of Masters and Pilots of Steam Vessels, the Society for the Prevention of Cruelty to Animals, and the Rhode Island Chapter, Sons of the American Revolution. He was a lieutenant and paymaster of the Naval Reserve Battalion, and during the Spanish-American War he placed his steam yacht "Velthra" at the service of the United States Government.

Mr. Lippitt was a staunch Republican and was a member of the Rhode Island House of Representatives from 1894 to 1896. During his second year in the House he was chairman of the committee on corporations. He was a member of the commission appointed by the General Assembly to represent the State at the Atlanta Exposition.

#### CHARLES MASON BEACH.

CHARLES MASON BEACH, one of the oldest and most respected business men of Hartford, Conn., died early Monday morning, June 27, in his home at Vine Hill, West Hartford, of diseases incident to old age. He had been in failing health for some time, but his serious illness was of about two weeks' duration. Mr. Beach was born in Hartford, February 18, 1826, and was one of the ten children of George and Harriet Bradley Beach. Of this family, but one, a half brother, Isaac T. Beach, of Atlantic City, one of seven children by a second wife is now living. Mr. Beach's early business experience was as a clerk in the store of Howe, Mather & Co., and in 1848, he and his brother, J. Watson Beach, bought their father's interest in the dyestuffs and chemical business which for the previous eleven years had been known under the firm name of Beach & Co., and retained his connection with this firm until his death. In 1869 Mr. Beach took up his permanent residence in West Hartford, where some years before he had built a summer home, and here he established one of the largest dairy and sheep farms in Connecticut.

Mr. Beach was the oldest director of the Phoenix Insurance Company of Hartford and one of the oldest directors of the Hartford Steam Boiler Inspection & Insurance Company. He was a director of the Hartford Carpet Corporation and of its predecessor, the Hartford Carpet Company. Since 1879 he had been a director of the Connecticut Mutual Life Insurance Company, and one of the directors of the Phoenix National Bank. For

many years he was a director of the Illinois Central Railroad Company, of the Holyoke Water Power Company, and was treasurer of the Broad Brook Company. For the past ten years he had been one of the trustees of donations and bequests for church purposes of the Episcopal Diocese of Connecticut, and was senior warden of St. James parish.

On October 8, 1849, he married Frances Lyman Belknap, who died in 1902. Of their seven children six are now living,— Mrs. W. W. Huntington, Miss Frances A., Miss Edith, and Miss Mary E. Beach, T. Belknap Beach, and Charles Edward Beach, all of West Hartford.

### FREDERICK H. DANIELL.

FREDERICK H. DANIELL, for twenty-five years the Superintendent of the Sulloway Mills, died at his home in Franklin, N.H., July 28, 1910. His illness, caused by a brain tumor, had continued since last March. Although he was only forty-eight years old, Mr. Daniell had been connected with the Sulloway Mills for thirty-one years, having entered the office from the Franklin High School when he was seventeen years old. He has been a faithful employee, an efficient manager and a trusted adviser, and has witnessed the growth of the mill from a plant with four sets of cards and fifty knitting machines, when he entered the office in 1879, to the well-equipped establishment of to-day, with ten sets of cards and four hundred and fifty knitting machines.

Mr. Daniell was born in Franklin, N.H., May 4, 1862, and was the son of Frank H., and Martha Haley Daniell. His father and two brothers, Charles F. and Frank E. Daniell, survive him, and he leaves a wife, who was a daughter of the late State Attorney General Daniel Barnard; one son, William Barnard Daniell and a daughter, Marguerite Daniell.

He was a member of the board of directors of the Sulloway Mills corporation; a trustee of the Franklin Savings Bank and a member of the examining committee. He was a director of the Peterboro & Hillsboro Railroad, a director of the Dominion Chemical Company and a member of the Franklin Board of Trade. He took an active interest in the work of the First Unitarian Church, and was a member of the finance committee. Mr. Daniell belonged to Meridian Lodge, A.F. and A.M., St. Omer Chapter, Royal Arch Masons, and Winnepesaukee Lodge, A.O.U.W.

## EDWIN T. MARBLE.

THE venerable head of the Curtis & Marble Machine Company, Edwin T. Marble, died at his home in Worcester, Mass., Sunday, July 3, aged eighty-two years. Mr. Marble was born in Sutton, Mass., in 1827, and moved to Worcester in 1841, where he found work as an apprentice and later as superintendent in various machine shops. In 1863 he became associated under the firm name of Curtis & Marble with Albert Curtis, who had established the business of manufacturing woolen finishing machinery in 1831. The business of the firm steadily grew in magnitude, and in 1895 Mr. Marble purchased the Curtis interest and incorporated the present company, assuming the positions of president and treasurer, the other offices of the company being filled by his four sons, Edwin H., William C., Charles F., and Albert C. Marble. A large business has been developed and nearly all of the finishing machines manufactured by the company are the result of the mechanical and inventive skill of Edwin T. Marble or his son, Edwin H. Marble. Mr. Marble was a director of the free public library and of the Worcester Safe Deposit & Trust Company; a trustee and vice-president of the People's Savings Bank; a member of the Board of Trade and of the Worcester County Agricultural Society. The funeral was held Wednesday, July 6, and the entire body of employees was present. Eight employees longest in service, one man with a continuous record of forty-eight years, were among the honorary pall-bearers.



## THE ANNUAL BANQUET POSTPONED.

THE annual banquet of the National Association of Wool Manufacturers has been postponed from September 14, 1910, the date originally set, to February 1, 1911, the date of the annual business meeting of the Association. A great deal of interest had been manifested in the banquet, which was to be held at the Hotel Somerset in Boston this month, and there will be much regret that it was deferred, but the postponement has become inevitable.

Three weeks ago Hon. James S. Sherman, Vice-President of the United States, who was to be one of the distinguished guests and speakers before the Association, sent the following letter explaining his inability to attend :

UTICA, N.Y., August 18, 1910.

MR. WINTHROP L. MARVIN, *Secretary National Association of Wool Manufacturers, 683 Atlantic Avenue, Boston, Mass.*

MY DEAR MR. MARVIN: It is with considerable reluctance and great regret that I write you to say that because of the recent political developments in this State it will be practically impossible for me to fill my engagement to speak to your Association during September, as the State convention has been called for the 27th of that month. I regret very much the situation, but it is one over which I have no control and one which brings with it the call for my action as above outlined. I shall be pleased, later on, to make good, but I am now giving you this early notice so that you may not be in any way embarrassed.

With cordial regard, I am

Most sincerely yours,

J. S. SHERMAN.

Consequently, the banquet, for which elaborate arrangements were being made, has been given up altogether for the present, and set for the evening of the day of the next annual meeting of the Association, February 1, 1911. By that time the disturbed political situation will have cleared, and it is to be hoped that there will have come a marked and enduring improvement in the business situation. The guests of the Association, with Vice-President Sherman, were to have been Senator Francis E. Warren of Wyoming and Senator Henry Cabot Lodge of Massachusetts, and it is not improbable that the members of the Association and their friends may yet have an opportunity to see and hear these gentlemen, with Mr. Sherman.

## Editorial and Industrial Miscellany.

### "WOOL GROWING AND THE TARIFF."

#### AN IMPORTANT NEW STUDY IN THE ECONOMIC HISTORY OF AMERICA.

OF the making of books there is no end, but only once in a long while is it our fortune to chronicle the publishing of a work of practical interest to the wool manufacturing and wool growing industry of America. Technical literature of a quality to command serious attention and devoted to great industrial undertakings grows but slowly in any country of the world. Mr. Chester Whitney Wright's "Wool Growing and the Tariff; A Study in the Economic History of the United States," awarded the David A. Wells prize for the year 1907-1908 and published by the Houghton Mifflin Company, Boston and New York, is the fruit of independent research, bearing tokens of unusual zeal and perseverance. It is well worthy of a close study by reading men engaged in the raising of wool or the making of fabrics. Mr. Wright is Instructor in Political Economy in the University of Chicago, and was formerly Austin Teaching Fellow at Harvard. He acknowledges his especial indebtedness of consultation and coöperation with Professor F. W. Taussig.

The salient characteristic of this work is its painstaking care. A great many authorities have been studied and are liberally cited, and always where it is possible any specific statement that is liable to challenge is buttressed by such reference. Years of single-minded, studious labor have gone into the preparation of the volume. For its historical citations and for the specific facts and figures that it contains, the book is one deserving of a place in the library of the manufacturer, farmer, and stockman.

The preliminary chapters present a good narrative of the slow advance of wool growing and wool manufacturing in the life of the colonies and in the early years of the republic. The first notable importations of the Spanish merinos and the sudden inflation of the wool manufacture under the stress of the embargo and the War of 1812 are faithfully described. No very serious exception can be taken to most of Mr. Wright's historical state-

ments of this period. But his general treatment of the question in his first few pages discloses the fact that he has no realizing sense of the close interdependence between the wool growing and the wool manufacturing branches of the common industry. Wool growing is an art that required something more than the modest demands of household spinning and weaving to sustain it, and the small progress of wool raising in the first decades of the last century calls for no further explanation than that there was no actual manufacture in this country to create and sustain a large demand for American wool. American wool growing began to develop in a broad way with the commercial development of American wool manufacturing. This country has never at any time figured as an exporter of wool for manufacture elsewhere, nor, unless there is a radical change in American economic conditions, will it ever become an exporter on any considerable scale. For the competition which the American wool grower must face is the competition chiefly of uncivilized or semi-civilized labor operating under primitive conditions, the very cheapest labor in the world.

The one place where American wool can profitably be sold and utilized is in the American market. Never did a political prediction fail more ignominiously than that of the leaders of the "tariff reform" movement of 1892-1894 in the Western States, who endeavored to reconcile the farmers to free wool with the assurance that even if the reduced tariff did cripple the domestic manufacturing industry and close the New England mills, American wool growers would find compensation in the chance to sell their wools abroad! Experience brought a cruel but complete disillusionment. Foreign manufacturers, accustomed to other sources of supply, would not have American wools at any price, and it is related of a promising consignment shipped from Philadelphia that the men who sent it to England not only could not sell their product, but actually had to transmit a sum of money to bring it back again.

This all-significant aspect of the question is almost completely overlooked by the present writer. Protection is a broad, national policy, and not a shifting industrial expedient. With the enormous disparity in the cost of labor, the wool manufacture could not exist in the United States without a protective tariff. And a protective tariff in a country ruled by all of the people cannot be conferred on one industry exposed to foreign competition and

withheld from another industry similarly exposed. This is a fundamental human fact which too many professional economists ignore.

When Mr. Wright in summing up his argument contends that the wool growers of America have profited very little from the duties on wool and, therefore, have profited very little from protection, he is disposing of but one-half of the case. The validity of his conclusion, that even the wool duties themselves have been of small advantage to the wool growers, would not be acknowledged by the protectionists who are in such an overwhelming majority in America. But even if this were admitted, it would still be possible for the protectionists to prove that the duties on the manufactured woolen goods, by creating a market for American wools, have been of enormous advantage to American agriculture.

It should be borne in mind that Mr. Wright, as he himself states, is a pupil and follower of Professor F. W. Taussig, who represents a school of economic thought more prominent and aggressive in our colleges and universities years ago than now, the insistent and combative out-and-out free trader of the type of which the late Professor Perry of Williams, and Professor Sumner of Yale were perhaps the weightiest exponents. These teachers were fond of citing English examples, and were honestly convinced that all protection was fundamentally wrong and ineffective. This is less and less the modern spirit of political economy as taught in our American schools. The old fashion, the fashion of Mr. David A. Wells and his compeers, was to start with a proposition that protection was an error, and then to attempt to prove it. But the newer fashion is more and more an impartial setting forth of the two sides of the tariff question, leaving readers and pupils to draw their individual conclusions. It is to be regretted that Mr. Wright's work does not partake more thoroughly of this modern spirit. So far as he has allowed the influence of Professor Taussig to sway him it has prejudiced his work and lessened its enduring value.

This is illustrated in the adroitness with which the author slides over, as it were, the disastrous practical experience with free wool in 1894-1897. That is a theme which intrinsically demands consideration through many pages. It is not to be disposed of by a statement that the number of sheep in the new far Western States held its own or actually increased during the free

wool era, and that the heavy decrease was in the older States alone. This makes it easy for the protectionists to reply that there would have been a larger increase in the Western States but for the free wool folly, and that without this there might have been no net decrease in the older States at all.

It is possible to admire the unflagging industry of Mr. Wright's research and the interesting way in which his studies are expressed, and yet to dissent entirely from his conclusions. Sagacious champions of the protective wool duties have never gone so far as to pretend that the ultimate result of these duties would be to produce in the United States all of the wool consumed in American manufacturing. This would have been extravagant prophecy. Mr. Wright, following Professor Taussig, denies protection its rightful due, but there is a golden middle course. It is the part of discretion always not to insist that the protective policy is omnipotent, and that a customs rate possesses necessarily the magic properties of an Aladdin's lamp.

Even with its faults of spirit and of judgment, Mr. Wright's book is the most important contribution to the theme of the wool industry of America that has appeared for a long time. It is, of course, an economic treatise and not a political document, and we have no fear that a careful reading of the volume will shake in the slightest the faith of practical wool growers or manufacturers or other informed believers in the protective system. As Mr. Wright himself remarks, no part of the protective tariff has been more savagely assailed than the wool and woollen schedule. And yet so long as the vast majority of opinion — indeed virtually the unanimous opinion — of the men actually engaged year after year in the growing of wool and in the manufacture of wool remains that the protective policy is the most favorable policy to their industry, so long these practical men who know their subject at close range will be able to command the general agreement of their fellow-countrymen.

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#### A VICTORY OVER CLASS LEGISLATION.

IN "American Industries," Mr. James A. Emery, general counsel of the National Council for Industrial Defence, presents a clear and striking analysis of the circumstances of the defeat in Congress of the Hughes amendment, exempting labor organiza-



tions from prosecution for violations of the Sherman anti-trust law. Mr. Emery's article not only shows the viciousness of this attempted class legislation, but reveals in a startling way the character of the men who have endeavored to create a privileged class in violation of all American principles of fair play and just dealing. Mr. Emery says :

A flash of lightning sometimes reveals a landscape with striking clearness. The purposes of men are sometimes revealed with equally startling frankness in some single supreme flash of effort. To this class of phenomena belongs the attempt to pass the Hughes amendment to the Sundry Civil Bill. It reveals at a glance more of the determination and boldness of the effort of the American Federation of Labor to secure privileged exemption from the law than pages of argument and exposition could make plain. The struggle was equally interesting in revealing the qualities of the men who proposed and opposed this amendment.

To make the matter clear to the reader, it should be recalled that for years constant effort has been made to specifically exempt combinations of labor from the terms of the Sherman Anti-Trust Act. Mr. Hughes, the Democratic Congressman from Paterson, the Sixth New Jersey District, has been particularly conspicuous for his advocacy of this proposal. He has continually supported it by misconstruction of the decision of the Supreme Court in the Danbury hatters' case and by misunderstanding, misreading, and misinterpreting the legislative history of the Sherman Act. Mr. Hughes' peculiar qualifications to discuss this subject with misunderstanding are illustrated by the following two excerpts from his cross-examination by the Hon Charles E. Littlefield, then chairman of a sub-committee of the Judiciary, before whom Mr. Hughes appeared to advocate his bill proposing the exemption to organizations of labor from the Sherman Act. This examination occurred Saturday, March 14, 1908. Mr. Littlefield had brought out the fact that Mr. Hughes desired to withdraw the legal ban placed upon the boycott. Then Mr. Littlefield said :

"Do you know what the definition of a boycott is in law ; and if you do, give it."

Mr. Hughes : "I do not know."

Mr. Littlefield : "You do not know ?"

Mr. Hughes : "No, sir."

Mr. Littlefield : "All your reading on this subject has not given you information so that you know what is a boycott ; but still you want to amend this law in regard to the boycott."

To illustrate Mr. Hughes' purpose, to which he endeavored to give effect by his amendment to the Sundry Civil Bill, a further bit of testimony before Mr. Littlefield is interesting :

Mr. Littlefield: "You want the labor organizations authorized to do lawfully what the Court held they did criminally in the Loewe case?"

Mr. Hughes: "Yes."

Mr. Littlefield: "That is your precise purpose?"

Mr. Hughes: "Yes."

One more bit of testimony and even a layman will realize Mr. Hughes' special legal qualifications for interpreting the Sherman Act and the decisions of the Supreme Court thereon:

Mr. Littlefield: "What is a lawful conspiracy to boycott, from your point of view?"

Mr. Hughes: "Well, I remember in 1896 in many of the Eastern States there were men who expressed themselves to the effect that they were going to vote for Bryan who were subjected to a kind of a boycott. I never heard that that was unlawful. Nobody ever came to the front and tried to bring the Sherman Anti-Trust Act to bear upon those people."

Mr. Littlefield: "Was that inter-state commerce? According to your conception of the law, was that inter-state commerce?"

Mr. Hughes: "No; I should say not."

Mr. Littlefield: "If it was not inter-state commerce, how could you bring the Sherman Anti-Trust Law to bear upon it?"

Mr. Hughes: "It was not brought to bear upon it."

Mr. Littlefield: "Then that suggestion you have made has nothing to do with the case?"

Mr. Hughes: "I am sorry I made it."

In pursuance of these views and possessing the legal equipment to be inferred from the above evidence, Mr. Hughes proposed on June 2 the following amendment to a provision of the Sundry Civil Bill appropriating \$100,000 for the enforcement of anti-trust laws:

"Provided further, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours, or bettering the condition of labor, or any act done in furtherance thereof, not in itself unlawful."

"This amendment," said Mr. Hughes, "simply says to the Attorney General that he shall not actively engage himself, at least he shall not expend this particular sum of money appropriated, for the specific purpose of enforcing the Sherman Anti-Trust Act against organizations of labor."

In the course of the brief debate that followed, Mr. Hughes further criticises the government for having indicted and convicted night riders in Kentucky under the Sherman Act. This body of men, who destroyed their neighbors' fields, took their neighbors' lives, whipped members of their families, terrorized a whole community, and intimidated and even killed witnesses who had or were about to testify against them, were in their

methods and purposes made the subject of the following remarkable comparison by Mr. Hughes on the floor of the House:

*"The men were connected with an organization which is practically parallel, practically identical, in its purposes, with the organizations of labor."*

Thus an alleged friend of the labor organizations makes a comparison that must, to say the least, be slightly startling to union leaders. On this occasion, many of the members having left the House for the day, the amendment was agreed to in Committee of the Whole after considerable preliminary skirmishing, by a final vote of 82 to 52, no record of the vote being taken.

On June 23, the matter came up in the House for final consideration, and Mr. Tawney, Chairman of the Committee on Appropriations, moved that the House recede from its position and concur with the Senate. Speeches of striking courage, ability, and eloquence were made by Mr. Tawney, of Minnesota, Mr. Madison, of Kansas, and Mr. Madden, of Illinois, urging the House to defeat Mr. Hughes' amendment.

"In my judgment," said Mr. Tawney, "we owe it to ourselves, we owe it to the country, we owe it to the administration, and to the enforcement of the criminal laws of the United States to recede and concur in the amendment of the Senate striking out this provision.

"The effect of the amendment presented by the gentleman from New Jersey and adopted in the Committee of the Whole, if it has any effect at all, or I might better say the intended effect of this amendment is to exempt a certain class of our citizens from prosecution for the violation of the criminal statutes of the United States in relation to unlawful combinations. This is therefore class legislation of the most pernicious and the most vicious character."

Then said the distinguished gentleman from Minnesota, with that courage which has always characterized him throughout his public career, "Before I would vote to surrender a principle so vital to the very existence of government as this principle is, I would willingly surrender my seat on the floor of the House of Representatives."

Mr. Madison, of Kansas, who sat for many years upon the bench of his State, followed Mr. Tawney in an eloquent denunciation of the amendment, and referring to Mr. Hughes' oft-repeated statement that the Loewe decision made every strike affecting interstate commerce unlawful, said: "Gentlemen, there is not a line in that case that even hints at such a proposition. My friend is mistaken; he certainly has not read the decision. I undertake to say there is not a lawyer in this House on either side who will read that case and stand before his constituents or any assemblage of honest men and say that it is there. It is not."

"I hope," said Judge Madison, in ringing appeal, "that to-day

the response will come sharp and strong from every patriotic heart in this hall that this proposed step will not be taken toward the legalization of the secondary boycott; that our action here to-day will again proclaim that in the United States all men must stand equal before the law and all men, without exception, must obey the law."

Mr. Madden, of Illinois, declared: "Whether I ever sit in this House again or not, I feel that I should rise here in my place and raise my voice against any attempt to make it criminal for one man to do a thing that is legal for another man to do."

Following the debate on an aye and nay roll call, the House finally and decisively rejected Mr. Hughes' amendment by a vote of 138 to 130, 16 answering present and 105 not voting.

To the action of the House was added a vigorous and splendid denunciation by the President, who condemned in the strongest and clearest terms this bold and impudent effort to prevent the execution of the law while it stood on the statute books. This splendid contest for fundamental American principles, bringing out as it did upon the floor of the House of Representatives language and action worthy of its greatest traditions, cannot but be regarded as a wholesome victory that will have far reaching and beneficial effects in the future.

## FACTORY WAGES IN ENGLAND.

CONSIDERABLE difficulty has been experienced lately in the English woolen factories in obtaining all of the help needed, work being so plentiful, it is claimed, that some firms could use more hands both in the spinning and weaving departments. It is growing more noticeable that British girls are becoming averse to factory work and are seeking the more congenial occupations afforded by increasing opportunities in office work. The attractions of mill life with work from 6 A.M. to 5.30 P.M. for 12s. a week do not offer a strong appeal in competition with employment in offices and stores, so an increase in the wage scale of English factories may be necessary in order to obtain all of the help that is needed.

The free trade policy of Great Britain which has given to English manufacturers cheap raw material has not benefited labor with a high scale of wages, and it is not surprising that the agitation for tariff reform gains in force when the English labor scale is compared with that of Germany and the United States, and the effect of the policy of protection upon the growth of the industry and the condition of the employees is pointed out. To

show the profitable condition of the English woolen manufacturer, figures given in a prospectus of the prominent Bradford firm of Joseph Benn & Sons, Ltd., stating the profits of their business at over £39,000 a year for the years 1890 to 1901, or an aggregate for that period of nearly half a million pounds sterling, are being quoted in British periodicals. The claim is being made that if the manufacturers are making so much money as this the scale of wages could be raised without injurious effects. In this connection much use is being made of a remark by Mr. Harrison Benn that workmen in the American mill of Joseph Benn & Sons at Greystone, R.I., can save more money than they can earn in England, and a table of comparative wages in Bradford, England, and Greystone, R.I., supplied by Mr. Benn, appears to back up his statement. The difference in the English scale of wages and that of the United States is effectively presented in this interesting comparison :

	Clayton and Bradford.				Greystone.			
	s.	d.	s.	d.	s.	d.	s.	d.
Wool sorters (day work) per week...	32	0			66	8		
Men box-minders.....	17	0	@	18 0	33	4		
Noble comb-minders.....	20	0			39	7		
Can gill-minders.....	12	6			29	2		
Drawers.....	12	0	@	13 0	29	2		
Rovers.....	11	0			29	2		
Spinning overlookers.....	30	0			62	6		
Girl spinners (according to number of spindles).....	9	6	@	13 6	20	10	@	29 2
Doffers.....	9	0			18	9		
Girl twisters.....	11	0			29	2		
Girl warpers.....	13	0			33	4		
Weavers.....	15	0	@	16 0	41	8	@	54 2
Weaving overlookers.....	36	0			66	8		
Joiners.....	31	0	@	32 0	62	6		
Mechanics.....	30	0			62	6		
Stokers.....	25	0			50	0		

The wage scale is the measure of a country's purchasing power. In England some articles may be cheaper than in the United States, but the purchasing power of the population is considerably less. An editorial in the Trenton "State Gazette" contains the following comment along these lines :

Canada has a protective tariff, and some foodstuffs and other things cost consumers less in Canada than they cost consumers in the United States.



We are able to buy in our markets some things for less than Canadians are able to buy them in their markets. For the matter of that, we are able to buy some things here for less than British consumers can buy them at home.

There are some advantages which pretty nearly every country has over others. But that is not the question. The question is the buying power of the consumer here under our tariff, as compared with a protected Canada, a free-trade Great Britain, or any other country, under whatever tariff system.

Nowhere else in the world is there the buying power of the American wage-earner, the general consumer who earns his living — and he makes up, virtually, the whole of our race.

A day's work for the man who is earning his living in the United States under our tariff system will get him more of the food, clothes, and luxuries he seeks; will give him better housing; will provide him more amusements, and will enable him to lay up larger savings than are to be had out of a day's work, on the average, anywhere else on earth.

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### INDUSTRIAL EDUCATION.

HIGH appreciation of the value of technical training was expressed by Mr. Carnegie when he said: "The technical school has given to this country a class of young men the like of which is seen nowhere else in the world." The apprentice system fails to accomplish the best results because the boy is set to a merely manual task and is not taught the relation of his work to other processes. With technical training the brain becomes an equal factor with the hands. It has been said that the secret of our industrial success is "the application of brains and knowledge to our work even in the smallest detail." Our advance in technical training dates from 1884, when the textile school in connection with the School of Industrial Art was opened in Philadelphia. Since then schools of value have been established at Lowell and New Bedford, Mass., Atlanta, Ga., and at West Raleigh, N.C. Careful attention has been devoted to technical education in European countries, and an interesting review of the situation abroad has been contributed to the "Yorkshire Post" by their engineering correspondent, which is reproduced below:

Of all the factors that go to determine a nation's industrial strength there is none more important than the proper training of its industrial army. In former times the trade guild and the employer between them looked after this vital matter; but as

the old idea of apprenticeship gave place to a newer, the proper instruction of the young craftsman became nobody's business in particular. It was to obviate the worst results of this that facilities — first private, but afterwards public — were provided whereby the apprentice could obtain for himself some systematic teaching in the principles and practice of his trade, irrespective of that afforded him by his employment. Thus began evening technical schools; and that England was not backward in her desire for a well-trained industrial population is evidenced by the high level to which such schools had been developed in this country before the close of the last century. One, or perhaps two, other countries may have had larger single institutions, but none could surpass us in the general excellence of the whole system. Besides our evening schools, there also came into being day technical schools and engineering colleges, fit to rank with those of any country, to provide a technical training for those destined for the higher positions of the industrial world. Each of these agencies has done excellent work, and we are naturally reluctant to believe in their inadequacy, but it begins to be realized that they have serious faults, and are but temporary expedients, suited to a period of transition. Other countries, having worked evening schools and day colleges less successfully than we, have discovered their weaknesses earlier and started in advance of us along other lines, so that we have already some leeway to make up.

The evening school system breaks down in two places. In the first place it over-taxes the apprentice. Any youngster who has kept his body and brain active through a working day of nine and a half hours ought to slack off in the evening. At the best he will be in but poor form for receiving instruction; at the worst his health may give, and, if the object of the training is to make a more efficient industrial army, no worse means could be adopted than to over-tax the unit. The second failing is that the work of the shops and the tuition of the class are not sufficiently co-related. The one goes on independently of the other, and the only connecting link is the student himself, who must try to bring the demonstrations of the one into some relation to the practice of the other. The day school or college belongs to another sphere. Its graduates are not destined for the ranks, but for positions of greater trust and larger pay. Its main weakness at present is that the graduate has missed the ordinary shop training, a disability which even if he succeeds he will always feel, and which if he fails will leave him stranded. The high places of the industrial world, moreover, ought to be filled by the picked men who have risen by sheer ability through a sequence of positions, gaining experience all the way. The college does not at present turn out such men, because it does not necessarily handle picked material. If the college were the crowning point of a pyramid to the lower stratum of which every apprentice had access with the

freedom to raise himself through each successive stage by proved ability, its product would be in demand at big prices, instead of, as is sometimes the case now, being a drug on the labor market.

The Prussian alternative to evening instruction is that of compulsory attendance of all apprentices for a given number of hours each week at a public trade school. In Düsseldorf, for instance, there are 7000 apprentices each receiving instruction in the principles and practice of their trade. They attend four hours on one morning, and four hours on one afternoon each week, making eight hours per week in all; and toward the expenses of their teaching the employer pays the small sum of 8s. per year. The instruction in these schools is severely special and practical. They fulfil the eminently desirable object of making every apprentice acquainted with the real principles on which his craft is based, and the best known methods of putting those principles into practice, to the end that he may be an efficient unit in the industrial machine. This end is undoubtedly gained, but there seems to be a repressive influence at work at the same time. The youths become artisans but nothing more. The future managers, directors, inventors, organizers are of another class. The Prussian system appears to work well so far as it goes, but the proper edifice of opportunity is not built upon it.

An objection that is often raised against the part-time school is the inconvenience caused by the absence of the apprentice from his work. It is true that this upsets works arrangements and often reacts against the apprentice himself by cutting him out from jobs on which broken time cannot be tolerated, but it appears certain that any comprehensive system of thorough industrial education must be based on part-time school attendance, and any inconveniences will have to be borne as necessary evils. The Prussian employer grumbles hard enough but puts up with it in the end.

Even with the public trade school there still remains the wide gulf between the works and the class. The teacher cannot follow his pupil to the lathe or bench and show him there the application of what he has been taught to the work in hand. But even this disability is removed in the case of the private apprentice schools established by many large firms in America, a few in Germany, and one or two here. There are differences of detail, but the principle in each case is to regard the apprentices during their earlier years as students, whether in shop or class. The plan most followed is to divide the apprentices into two parts, one of which is in the works, whilst the other is in the class, and vice versa. The class instruction follows a carefully chosen course bearing upon the work being handled in the shops. The tutor in the class is the foreman in the works, and so continuity of teaching is preserved. A separate workshop may be relegated to the apprentices, fitted up with a good representative set of tools, and supplied with such jobs as come within apprentice capac-

ity, or, better still, the lads may be distributed about the shops at bench or machine in charge of a skilled journeyman or under the occasional supervision of the teacher. If the system be properly carried out there can be no scheme of instruction better than this, but obviously it is only possible to large firms or corporations. Yet it is not a costly scheme. Apprentices receiving such a training will naturally not expect full apprentice wages, but even if such are paid there are many immediate, and still more deferred, compensations. Almost at once the lads produce better work and make less waste. In a short time they are executing work that would otherwise have been impossible to them, and as they grow up the firm finds in them the skilled human material, upon the supply of which the continuance of any firm ultimately depends.

The keynote of both the schemes outlined above is the merging together of shop practice and class teaching. Whatever position a man hopes to ultimately fill he can ill dispense with a practical and early acquaintance with workshop conditions. Moreover, it accords with the soundest educational theory to create first the curiosity to know the reasons for observed phenomena, or the solutions for problems encountered, before supplying answers thereto. Workshop practice raises naturally the craving for knowledge in a way that can never be copied by the day school or college. But the opportunity of the college comes later, when the apprenticeship course is finished. Out of a group so trained there is sure to be one standing out from the rest in promise to make a first-class research worker, engineer, or industrial leader. An engineering college that could start on material such as this gathered from a hundred firms would show big results at the end.

A method of training which has found some favor in America is that of the full-time trade school. Here, unless the school is heavily endowed, the apprentice or pupil pays rather substantial fees. The school is conducted, as far as possible, like a small works, and orders are solicited from firms in the neighborhood requiring repairs or special work. This is done by the pupils under proper supervision, who are thus instructed in the different operations by actual practice. The objection here is in the first place the high cost, and in the second place the impossibility of ever reproducing a works atmosphere and spirit in any place where the work is not being carried on under strictly commercial conditions.



CANADIAN WOOL GROWER AND MANUFACTURER.  
 THE CORRELATION OF THEIR INDUSTRIES ACKNOWLEDGED  
 — MANUFACTURERS AID THE GROWERS TO OBTAIN AN  
 INCREASE OF DUTY.

EVIDENCE multiplies that the Dominion of Canada is passing through economic experiences similar to those through which the United States has passed. The development of Canada from an agricultural community to a respectable position among the manufacturing countries has raised problems similar to those which American law-makers and business men have had to solve. That Canada is adopting the methods of solution employed by the United States instead of following the methods in vogue in England is not due to any desire to flatter a powerful neighbor nor to any disloyalty to the Mother Country, but is due wholly and simply to fundamental economic conditions, which are much the same in Canada as those which prevail in this country. The basis of these conditions is to be found in the large areas of cheap and fertile land which afford the native and the immigrant a wider choice of occupations. If all available land were under cultivation by owners or lease-holders and surplus labor could find no opening but that afforded by the mills and factories, wages would be on the low scale of European countries instead of the higher rates prevailing in the United States. It is because conditions in Canada more nearly approximate those in America, and Canadian wages approximate American wages rather than European wages, that American methods instead of British methods have been adopted as the policy best suited to the development of Canadian industries. This is the reason why Canada is applying the protective principle of America instead of the free trade principles of Great Britain.

Canada is proud of the development under the policy of protection of its iron and steel manufactures, of its manufactures of lumber, its products of leather, of its paper, cotton, and other manufacturing interests, but as in the early tariff struggles in the United States, the allied industries of wool growing and wool manufacturing have not enjoyed the general measure of prosperity. In our early tariff experiments the wool grower at one time would be favored and wool growing would increase; then the wool manufacturer would have his innings and the



grower would suffer. In Canada the wool manufacturer has received the chief attention and the wool grower has been neglected until Canadian flocks have been sadly diminished, having declined almost one-third in number since 1871, in which year Canada had 3,155,509 sheep, and in 1901 only 2,510,239. During these years the population of Canada had nearly doubled, the number of horses and swine had almost doubled, and the number of cattle had more than doubled. Throughout this period of remarkable growth, the raising of sheep was one of the few Canadian industries which failed to prosper. Canada was learning through hard experience the lesson which in our earlier years we had to learn, that in spite of cheap land and great grazing areas, sheep growing is a losing venture without protection. For the Canadian sheep were virtually without protection, for while the Canadian tariff levies a duty of three cents a pound on English combing and similar wools, reduced in the case of England under the preferential clause to two cents a pound, there is no duty whatever on wools of merino blood, which constitute the bulk of their importations.

It is not to be wondered at that such a condition of affairs has at last become intolerable, and the wool grower and wool manufacturer have come to see that they have common interests, that neither industry can prosper at the expense of the other, and that if the manufacturer is entitled to protection so is the wool grower also. An important influence in shaping these events has been exerted by the "Canadian Textile Journal." In a recent issue it shows how the lessons learned from the history of the industry in America are being applied to the situation in Canada. Referring to the difference in the tariffs of the United States and Canada it says:

It may here be explained that the principle of the United States woolen tariff — settled upon after seventy-five years of antagonistic legislation, alternating between a tariff wholly in the interests of the farmers and one wholly to the advantage of the manufacturers — is that the duties should begin with raw wool and those engaged in each successive stage of manufacturing up to the finished clothing should have an additional protection corresponding to the amount of labor devoted to the process. Whatever may be said as to the degree of protection afforded to some branches of the industry, the principle is fair, as those engaged in every branch have some share in the pro-

tection to their labor, and the whole system is made national by being based on United States wool.

It is not so under the Canadian tariff. Here the farmer is excluded from all share in the benefits of the tariff, and consequently the industry has steadily lost the character of a native industry which it once had. Not only is raw wool free, but the materials of the first processes of manufacture are also free or else come in under a nominal rate of duty. It is manifest that every pound of tops and noils displaces a pound of Canadian wool, and it is equally manifest that no worsted manufacturer would pay the higher rate of wages in Canada and establish a worsted combing plant here to compete, under such conditions, with the cheaper labor of England or Europe. This explains why there are only three worsted combing plants in Canada, and why all of these import more or less of foreign tops to supply their spinning plants. And yet in other countries worsted manufacturing has made more progress in the last thirty years than the carded wool branch. The worsted industry of the United States, for instance, now consumes 261,000,000 pounds of raw wool per year, while the carded wool industry only consumes 157,000,000 pounds per year. Worsted manufacturing has also grown to be by far the larger industry in the chief textile manufacturing countries of Europe, such as Great Britain, Germany, France, and Belgium. Keeping in mind the fact that the wools of Ontario and Eastern Canada are specially adapted to the worsted trade, and that the wools of the western provinces, though of different character, are also quite adaptable to the worsted trade with modern machinery, the reader will cease to wonder why the Canadian farmer is forced to ship so much of his wool to the United States under the handicap of the tariff, and why the Canadian woolen manufacturer goes across the seas to get wool, tops, noils, shoddy, and rags which displace Canadian products of the same class. It is no doubt true, as manufacturers have often pointed out, that Canadian farmers have been at fault in not taking more care of the sheep, in not keeping the fleeces clean, in not properly grading the wool, in careless packing, and in the use of binder twine, which gives so much trouble when the wool goes into the mill; but if every fleece of every farm in Canada were perfect the sheep and wool interests could never under the present tariff develop in harmony as a great national industry such as they have in other lands.

Again, both woolen and worsted yarns are admitted under a duty of  $12\frac{1}{2}$  per cent under the preferential tariff where used in knitting and other factories; and every pound of yarn displaces more than a pound of Canadian wool. Of these yarns 2,360,547 pounds were imported in 1908. It is therefore only in the last stage in the manufacture of woven and knitted goods that the duties become effective. The protection on knitted goods in general is 35 per cent under the general tariff and  $22\frac{1}{2}$  per cent

under the British preferential tariff; hosiery, 35 per cent under the general and 25 per cent under the preferential; flannels and blankets, 35 per cent and  $22\frac{1}{2}$  per cent; carpets, 35 per cent and 25 per cent; woolen and worsted goods in general, 35 per cent and 30 per cent, and woolen clothing, 35 per cent and 30 per cent, the first figures in each case indicating the rate under the general tariff, and the second under the preferential tariff. It is a common misconception to speak of the duties on woolen goods as being on the above scale, but it will now be incontestably plain that, from the standpoint of the Canadian farmer and general consumer, and so far as they secure to Canadians the supply of the raw material, the conditions are: Free trade in the first two stages of the manufacture — that is, the preparation of the wool and the manufacture of tops and noils — and a duty of  $12\frac{1}{2}$  per cent in the third main process of manufacture. These elementary facts should be kept in mind, because when tariff changes are asked either by the wool growers or the manufacturers such changes are objected to on the ground that they are against the interests of the consumer. It is precisely because it will be in the interest of the general public that the present tariff needs a radical reconstruction. It is said by some that wool is raw material. True, it is raw material to the woolen manufacturer, but it is the farmer's finished product, on which he also has expended labor. As soon as labor is spent on an article it ceases to be raw material.

It is a significant fact that our neighbors to the north could find no other solution to the wool problem than that worked out after years of hardship by the combined effort of the American wool grower and manufacturer. It took years of discouragement and loss to teach the Canadians that the growing and manufacturing of wool are correlated interests. It is generally recognized now and the growers and manufacturers have already met in conference with the Minister of Customs at Ottawa to devise means to improve the condition of the wool industry in Canada. At this conference the wool growers presented for consideration the following points:

The Dominion Sheepbreeders' Association, realizing that the Canadian sheep industry is steadily declining, begs to submit the following:

Statistics indicate that the United States in 1870 had 28,470,000 head of sheep and in 1904, 51,630,000 head of sheep; while in Canada in 1871, 3,155,000 head of sheep were owned, and in 1905 only 2,100,000 head of sheep were owned.

These figures show that during an equal period the number of sheep in the United States increased over 80 per cent

(23,153,000), while those in Canada decreased over 30 per cent (1,055,000).

These opposite conditions are undoubtedly largely due to the fact that while in Canada wool now sells at from fifteen (15) cents to sixteen (16) cents per pound, in the United States wool of similar quality sells at from thirty (30) cents to thirty-two (32) cents per pound, this difference being accounted for principally by the duty of twelve (12) cents per pound imposed by the United States government on Canadian wool.

Some thirty years ago the government placed a duty of three cents per pound on wool, ostensibly for the protection of wool growers. This duty has, however, never been collected, the result being that manufacturers, while obtaining protection for their goods, have had practically free wool and tops, and low duties upon woollen yarns.

Sheep are, beyond question, the most valuable of all domestic animals in improving and maintaining the fertility of the land, as also in destroying weeds, eating freely as they do some five hundred and fifty out of six hundred weeds now known in America, while horses and cattle usually relish only from fifty to seventy of these weeds.

For these reasons many more sheep should be kept in all parts of the Dominion, especially in the grain-growing districts of the West, where weeds are rapidly becoming a serious menace to agriculture.

In view of the existing conditions as regards the wool market, and of the great benefit which would result to the country from the keeping of more sheep, we ask that a duty of five cents per pound be placed on all wools, thereby furnishing the protection promised years ago.

And that this duty be also placed upon woollen noils, woollen rags, waste, and shoddy, all of which compete with pure wool grown in Canada.

Naturally enough this claim of the growers for increased protection aroused hostile criticism in certain quarters. Among the influential papers which opposed the proposition was the "Toronto Globe." But as evidence that the manufacturers recognize the fairness of the position taken by the growers, a letter sent to the "Globe" by Hon. Thomas B. Caldwell, of the Clyde Woollen Mill, Lanark, and a former member of Parliament, is to the point. Mr. Caldwell's letter to the "Globe" reads as follows:

It appears to me that if you had desired to be fair in the treatment of this question, before taking your stand, you would have informed yourself as to the particular object of the meeting at Ottawa. From the interview the "Globe" had with Colonel



McCrae, a report of which also appeared in the "Globe" of Monday, 16th, you would have seen that the manufacturers and wool growers met, not to connive in forcing the government to place five cents a pound on wool, and a corresponding duty on manufactured goods, but to allow between these two sets of interests a discussion of the petition which the wool growers had sent in. I was one of the manufacturers invited, and was much interested in the meeting, each one, from his own point of view, trying to place the difficulty that besets the business.

The theme of your editorial is free trade *v.* protection, into a discussion of which I am not going to enter, but shall try and show that, persistently and unfairly, you have been hammering the woolen industry, seemingly with the intention of destroying it altogether.

Surely the woolen industry has a place in the building up of Canada.

The Government, recognizing the value of home industry, took up smelting of iron, and assisted it with giving bonuses of large sums of money. It has adopted the Ross rifle, and given assistance to establish a small-arms manufacturing plant, that Canada herself might be able to supply the weapons needed in times of trouble. It is now preparing to expend a great deal of money to establish and maintain a navy that will do duty should occasion arise. Would it not be in keeping with that same spirit to foster in the same way the manufactures of clothing and blankets, which are essential equally with weapons and ships?

Attempts have been made to discredit the Ross rifle by competitive manufacturers of small-arms in the Old Country, so as to advance their own interests, and were it not that Canadians had stood boldly up and repelled these attempts the Ross rifle would not be a Canadian product to-day.

In the same way, the Old Country merchant looks upon Canada as a market for his woollens. He employs every influence at his command to ridicule goods made in Canada. Many of our merchant tailors are his agents, and they make a boast of carrying in their shops none but imported goods.

The "Globe" — a paper that we have so much respect for — panders to this sentiment, and unthinkingly lends its strength to promote the schemes of those who are to be benefited by the destruction of a Canadian industry.

Where is our national spirit?

The Old Country merchant studying our tariff naturally looks for the weak points. Cloth, unlike hardware, machinery, implements, boots and shoes and many other lines whose value is easily determined, is a difficult article to appraise. It is difficult, also, to find out the actual duty paid.

Prior to 1896 the specific duty then in force prevented, up to a certain point, the methods of evading the customs which now prevail, but since that time no systematic attempt has been made



to overcome this effect. The United States has a system which works well in this respect. They have both specific and ad valorem duties, as well as employing a force of expert men in an organized bureau, where all samples of imports are submitted, appraised, compared with similar other imports, and rigidly inspected to make sure that they are the same quality and value as the sample. In that way evasion of the tariff is reduced to a minimum. The Government is aware of this, but so far has been satisfied with appointing one man, whose duties call him from Halifax to Vancouver and who alone can do the work only superficially. Perhaps the stand taken by a paper of your influence inclines the government to think it has gone far enough in this respect.

I have no doubt if American newspapers published Canadian news and invaded Canada to such an extent as to render newspaper business in Canada unprofitable, the gentleman who writes the editorials on the woolen question in the "Globe" would either change his opinions or be looking for another position. As it stands, I see the duty on newspapers or supplemental editions or parts thereof partly printed and intended to be completed and published in Canada is 25 per cent maximum tariff, and needs no appraising to be collected in full. This protection without competition places our Canadian newspapers in a perfectly safe position, and it is, therefore, easy for them to sit back in their chair and theorize about something about the practical end of which they know nothing.

If you are inspired by that national spirit which would have Canada not only a farming community, but able to provide for its own necessities, you would not allow mere theory to influence any further writing on the woolen question. You would stand by an industry that provides employment for our artisan class of which there is a proportion among our young men as large as among any other nationality.

Let the editor visit some of the mills and see the great effort that is being made to save this industry from annihilation, and if he is a thoughtful man he will realize his mistaken view and in a more practical way lend his assistance rather than the hostile opposition which hitherto has characterized his editorials on this question.

With such vigorous champions the Canadian wool industry will undoubtedly win its fight for fair treatment in the tariff system of the Dominion. With adequate protection there is no reason why the Canadian wool grower and manufacturer should not join that increasing procession of successful enterprises which is giving to Canada an important place among manufacturing communities. The lessons learned from American experi-

ence are not lost upon our northern neighbors. With an enterprise equal to our own, with a tariff system modeled upon ours, with a national pride and spirit and a unity of purpose unexcelled in any country, and abundant natural resources, the industrial development of the Dominion is sure to progress with great rapidity, and a new power in the commercial world will grow up upon our northern borders.

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### A DESERVED PROMOTION.

MR. FENWICK UMPLEBY, chief of textile design, cloth analysis and fabric construction in the Lowell Textile School, has resigned to become principal of the Bradford-Durfee Textile School in Fall River. Mr. Umpleby has been connected with the Lowell school since its establishment and has seen the plant grow from one loom to more than fifty and a great increase in the number of students. He succeeds, in Fall River, J. W. Bailey, a graduate of the Lowell Textile School, who resigned to take charge of a large manufacturing company's business.

Mr. Umpleby was born in Huddersfield, England, in April, 1852. He served a seven years' apprenticeship with a firm of machinists and later was manager of the firm's business. He graduated from Huddersfield Mechanics Institute in 1875. From 1877 to 1879 he was buyer of wool and raw materials and assistant manager and blend mixer for John Gledhill & Co., of Huddersfield. For three years, beginning in 1878, he was superintendent and designer for Hewitt, Haigh & Wilson, Leeds, England. For four years later he was designer for Robert Brearley & Sons, of Batley, England, and won four annual prizes for designs and fabrics. In 1884 he was a gold and silver medalist. A year later he graduated from Yorkshire College, and was also awarded a diploma by the city and guilds of London.

By special arrangement he came to the United States and opened and systematized a new department of fancy dress goods and cassimeres for James Lees & Sons, Bridgeport, Pa., remaining with them two years.

He was graduated and received a diploma from Chautauqua College of New York in 1888. He was also designer for the Globe Mills, in Utica, N.Y., from 1887 to 1889; held a similar

position with the Auburn Mills, Peterborough, Quebec, from 1889 to 1891, and was head designer for the George H. Gilbert Manufacturing Company, at Gilbertville, Mass., five years.

He was first instructor and assistant director in the Lowell Textile School for one year, and from 1897 has been chief of textile design, cloth analysis, and fabric construction.

Mr. Umpleby attended summer schools in Europe six successive summers, and four summers in later years he visited every textile and technical school in England, France, Germany, Scotland, and Ireland.

He has been a student as well as an instructor and has exerted a steadily broadening influence on textile methods and education, and as head of the Textile School at Fall River he has won a well-deserved promotion.

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### A COLLEGE COURSE IN WOOL.

AMERICAN Vice-Consul-General Baker at Sydney describes in the daily consular and trade reports the opening of a department for special instruction in the wool and sheep industry in the Sydney Technical College, an Australian state institution:

The course of instruction includes sheep classing, sheep judging, wool sorting, wool classing, preparing wool for the market, yields of wool, valuation of wool, uses and qualities of wool, scouring wool, fellmongering skins, shearing-shed work, and wool-trade usages.

The method of training the students in this industry is most useful and practical. It is framed to fit them to undertake the classification, skirting, rolling of fleeces, and sorting skirts or pieces to the best advantage to the grower, and also to meet the demands of the buyers. As the practical work advances, lectures on all subjects relating to the growing of wool and its suitability for manufacturing purposes are given. Advantage is taken of the Sydney wool sales to get students acquainted with the general routine of the wool business, and how wool should be prepared to suit the requirements of the various nations which import supplies from Australia.

Instruction begins the first week in February and terminates on July 31, at the time of the Sydney sheep show and stud sheep sales. These two events afford valuable opportunities for study, and serve as finishing lessons to those students who intend adopting station life as a profession. After the term expires students who have obtained their professional certificates in

wool classing and have had sufficient shed experience may be recommended as wool classers and sorters. Other students who have been industrious and are desirous of going on to stations to gain shed experience at the wool tables are recommended to squatters to skirt-roll fleeces and sort pieces.

Unskirted and unclassified wools are purchased from time to time in order to give experience in classing and sorting, and, to students who intend to take up station life, a thorough knowledge of skirting, rolling, and making up the fleeces in the best marketable styles. Arrangements are made with smaller wool growers or agents to send such lots to the college for classification, the wools classed under this arrangement bearing the college stamp. Sheep classing is also taught, after the knowledge necessary for sheep classing has already been imparted, by study of the wool. Visits are made for this purpose to the sheep-sale yards and meat-preserving works under superintendence of an expert lecturer.

During shearing time the students handle sheep and wool in the sheds. Instruction is given in scientific examination of wool, including use of the microscope, the action of reagents, the structure and appearance of hair follicles and their growth, and the effects of dyeing, dipping compounds, scouring, "carbonization," climate, food, etc.

Some classes have also been formed for training machine sheep-shearing experts to meet the needs of station owners and managers. The instruction includes work in elementary sheet-metal working, sanitary engineering, blacksmithing, carpentry, and fitting and turning. A plant consisting of the most modern sheep-shearing machines, run by oil engines, is installed in the college premises. This course is complete in two sessions, each of six months. There is also a class for instruction in sheep shearing only, which is completed in one term of two months duration. The object of this class is to give young men the opportunity of obtaining a sound, practical knowledge of shearing. Various types of machines are provided for this class. The instruction in classing and sorting wool covers two years, for which diplomas are given.

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## PART-TIME EDUCATION.

WHAT is known as the part-time system of industrial education, a combination of mental and manual training, is proving its usefulness and is steadily gaining ground in manufacturing centers. This system presents great opportunities to the textile industry, which is one of the largest employers in the country of child labor of legal age. The following article prepared by Mr. William H. Dooley, principal of the Lawrence, Mass., Indus-

trial School, and published in the "Textile Manufacturers Journal," describes the growth and present status of the movement and will prove of interest and value to the readers of the Bulletin:

According to statistics there are over 18,000,000 children attending the public schools of the United States. Over 17,000,000 of them drop out when the law permits them to and then enter machine shops, textile mills and other industries.

These children leave the public school at a very tender age—a time when they have little liking for school or interest in the subjects they have learned there. They have received absolutely no industrial training for the work they are going to do. The industrial operations are so highly specialized that the operators are not obliged to exercise any of the training they have received in school.

The result is that they rapidly lose the habit of thinking. Statistics from evening schools show that very few young people between fourteen and eighteen attend regularly. They are tired after a hard day's work and their only desire is to have their evenings free so that they may play with their companions—boylike.

The course of study of an evening school is not such as to attract, interest, and recreate tired children. Their eyes, wearied with long labor in the day, cannot endure the fatigue of much book work by night, but they are revived and charmed by the splendor of gay color and brilliant light of the moving picture and vaudeville shows. Physicians have stated repeatedly that it is not in the interest of the tired child to send him to evening schools.

#### THE GAP IN OUR EDUCATIONAL SYSTEM.

As a result we have youths working in our industries under conditions where there is absolutely no opportunity for them to receive an education, and where the effect of specialized work of the present industries is such as to destroy the power of initiative. It may be said, therefore, that, while existing public schools offer opportunities for general education preparatory for colleges and higher technical schools, and evening classes for adults, they practically provide no training for the great majority of children who leave school at fourteen and who enter industrial life.

Hence the need of some kind of a part-time system of education to provide an education during the day for children between fourteen and eighteen. It is necessary for the child to enter the industries at fourteen because the parents need the support of the child and at the same time there are certain industrial operations which a child can learn better than a grown person. For example, spinning, in which children of fourteen or fifteen can acquire manual dexterity and command higher wages than those



who can do only unskilled work. But the child at that age, when character and habits are becoming settled, would receive more benefit from a "part-time" course than from a regular course.

#### EUROPE EARLY RECOGNIZED THIS NEED.

European nations, especially England and continental nations of Europe, recognized the need of part-time schools long ago. As early as 1833 the "Half-time System" was introduced into England by her Commission on the Employment of Young Persons in Factories. This was introduced to prevent overwork and also to prevent under education, by requiring three hours' attendance in school each day. To show how successful this is, the late Commission on Technical Education in England stated that "half-time children of the great manufacturing towns in Keighley, England, numbering from 1500 to 2000, although they receive less than fourteen hours of instruction per week, and are required to attend the factory for twenty-eight hours in addition, yet obtain at the examination a higher percentage of passes than the average of children throughout the whole country receiving double the amount of schooling." Similar experiences in other parts of England show that the long-time system (all day schooling) and the omissions of industrial work are in violation of the laws of physiology.

#### THE CONTINUATION SCHOOLS OF EUROPE.

The heart of the part-time system on the Continent is the system of industrial education in the continuation school. Employers of labor are obliged to allow their apprentices between the ages of fourteen and eighteen from nine to twelve hours a week to attend the continuation school. This school is held during the day and consists of instruction in the mathematics of his trade, bookkeeping, language and correspondence, civics and the duties of citizenship, mechanics and chemistry underlying his trade.

All these laws were devised chiefly for the protection of children against excessive manual work, and also to serve for protection against too much as well as too little mental work, in which they have been, when properly administered, eminently successful, as well as in maintaining juvenile earnings. It is found that the rural population greatly preferred the half-day school, as it is called, for all the children, because they had the elder children at their disposal for half the day, *i.e.*, remunerative employment.

Statistics have shown how completely the character of the life of a nation can be changed by judicious legislation applied to the proper training and treatment of young people between the ages of fourteen and eighteen. This is all due to the power of mixed training — mental and industrial.

## A SUCCESSFUL PART-TIME SYSTEM.

The solution of the problem of a part-time education, or coöperative plan between the school and the manufacturers was first worked out by Professor Herman Schneider, of the University of Cincinnati, who more than ten years ago saw the need of closer coöperation between the shop and the school. His plan was first applied to technical students in the University of Cincinnati, and is this: In connection with the engineering department of the university there has been inaugurated a system of coöperation between the shops of the city and the university, whereby the shop takes charge of the practical training of the students and the university teaches the theory.

By this method the university is relieved of the necessity of equipping its laboratories with expensive machinery which, in the course of ten or fifteen years, may become obsolete, and the students are getting a practical training such as no school could possibly furnish. They are working in commercially operated plants, the hum of industry is on every hand and push and go are necessary in order to hold one's place in the shop organization.

## DETAILS OF PLAN.

The scheme in detail is as follows: Students taking the coöperative engineering course are divided into two sections which alternate with each other, one section at the shops for a week, while the other section is at the university. During the summer students work full time at the shops, but are given several weeks' vacation; there is a week's vacation also at Christmas. The practical work at the shops is as carefully planned as the theoretical work at the university, and in all cases the students follow, as nearly as possible, the paths of the machines manufactured from the raw material to the finished product. For instance, a student in electrical engineering spends the first year in the foundry; the next year and a half in the machine shop; the next two years in the commutator, controller, winding, erecting, and testing departments, and the subsequent time in the drafting rooms and sales offices.

## THE CONTRACT AND WAGE SCALE.

A contract is signed by the student, the university and the firm. This contract has a blank space to be filled out with the shop work the student is to receive during the six years of the course. In all cases the dean of the engineering college and the professor of electrical, mechanical or chemical engineering, as the case may be, confer with the manufacturers in planning this course of shop work; so that the students get a logically and carefully arranged shop and business training.

Students are paid for services while at the shops at 10 cents an

hour for the first period, with an advance of a cent per hour for each of the 11 succeeding periods.

(Each year is divided into two periods of approximately 990 hours.)

The total earnings for the shop work approximate \$1800 for the six years. The university expenses for tuition and laboratory fees are \$90 the first year, \$80 for the second and \$65 for each of the four following years, a total of \$430.

A student earns more than his tuition by \$1330.

#### OVERCAME ALL OBSTACLES.

Students who desire to enter this course are required to begin work in the shops on or about the first of July preceding their entrance to the university. Their admission to this course in September is in a measure dependent upon the character of work they do during the probationary period from July 1 until the college opens.

Like all new movements it had a great many obstacles in its way. It has been in existence long enough to know something about its success. Professor Schneider says it works smoothly from year to year. During the recent industrial depression these courses have been in operation to the satisfaction of all concerned. There are other part-time systems of education in existence, particularly at Fitchburg and Beverly, Mass.

#### FITCHBURG PART-TIME PLAN.

It might be of interest to study the development of the Fitchburg plan of industrial education. Daniel Simonds, president of the Simonds Manufacturing Company, and several other Fitchburg manufacturers were present at a meeting in New York when Professor Schneider explained his system. They were all impressed with the simplicity and practicability of the plan and wondered why such a scheme could not be adopted to high-school students who wished to learn a trade and continue their education at the same time.

A committee was appointed from the different manufacturers to consider the advisability of such a plan in the local high school. They reported a plan for a combination shop and school course, offering the use of their shops for the practical instruction of apprentices if the school would provide the necessary academic instruction. The school committee agreed to the plan and the following manufacturers entered into the agreement:

The Simonds Manufacturing Company (manufacturers of ball bearings); Fitchburg Steam Engine Company (manufacturers of steam engines); the Bath Grinder Company (manufacturers of grinding machinery); the Blake Steam Pump and Condenser Company (manufacturers of pumping machinery); the Cowdrey Machine Company (manufacturers of special and wood-working

machinery); the Putnam Machine Company (manufacturers of lathes, planes, railroad tools, and general machinery), and the Fitchburg Machine Company (manufacturers of lathes).

The course outlined is of four years' duration, the same as the regular high-school course. The first year is spent wholly in the school and the next three years in the shop and school — one week in the shop and one week in the school. In order to carry out this scheme the manufacturers take boys in pairs so that by alternating they have one of the pair always at work, and likewise the school is provided with one of the pair.

#### STARTING THE PLAN.

The Fitchburg scheme of industrial education was put into operation August 1, 1908. W. B. Hunter, a very capable man with both shop and technical training, was selected as director. He visited the parents of boys who had completed the freshman class of the high school and selected eighteen boys to begin a probationary period in the above-named shops to see if they were fitted for this work. On September 7 they were paired off — some had left and others had joined — there being twenty-two pupils, eleven in the shop and eleven in school.

The parents must agree that the boy will stay at this work for three years, and the manufacturer on his part agrees to teach him the various branches of the trade designated in the agreement. In order to make this binding the parents must file a bond of fifty dollars.

Each Saturday morning the boy who has been at school that week goes to the shop in order to get hold of the job his mate is working on and be ready to take it up Monday morning when the shop boy goes into school for a week. When there is a vacation week in school, work is provided in the shop, so that the boy does not have to loaf around the streets.

#### THE SHOP AND SCHOOL WORK.

The shop work consists of instruction in the operation of lathes, planes, drilling machines, bench and floor work, and other machine work.

The school work is twenty weeks a year. Since it is such a short course only such subjects as are of practical value to the student in the pursuit of a livelihood are taught. The regular courses of high-school study were discarded, precedent ignored and a new course of study made out. The subjects and years and the number of hours a week are as follows:

Subject.	FIRST YEAR.	No. of Hrs. a Wk.
English and current events .....		5
Arithmetic, tables and simple shop problems .....		5
Algebra .....		5
Freehand and mechanical drawing and bench work .....		8
		—
Total number of hours a week .....		23

## SECOND YEAR — SCHOOL AND SHOP WORK.

English .....	5
Shop mathematics, algebra and geometry .....	5
Physics .....	4
Civics .....	2
Mechanism and machines .....	5
Freehand and mechanical drawing .....	6
	—
Number of hours per week .....	27

## THIRD YEAR — SCHOOL AND SHOP WORK.

English .....	5
Shop mathematics .....	5
Chemistry .....	4
Physics .....	4
Mechanism and mechanics .....	5
First aid to injured .....	1
Freehand and mechanical drawing .....	6
	—
Number of hours per week .....	30

## FOURTH YEAR — SCHOOL AND SHOP WORK.

English .....	5
Commercial geography and business methods .....	2
Shop mathematics .....	4
Mechanism of machines .....	4
Physics, electricity and heat .....	4
Chemistry .....	6
Freehand and mechanical drawing .....	5
	—
Number of hours per week .....	30

## DETAILS OF INSTRUCTION.

English consists of practice and drill in forms of business papers, shop terms and spelling of common and technical terms. In addition, the daily happenings in the industrial works are discussed and a thorough course in industrial history — the history of the iron industry, factory system and labor problems, new inventions and the reading of mechanical journals to keep in touch with mechanical affairs.

Mathematics. — Beginning with simple proportions in mensuration, fractions, metric system, circular measures, general shop mathematics dealing with problems on cutting speeds and feeds, belting, gearing, strength of materials and general cost of figuring.

Algebra is taken up to give facility in using the formulas so



common in the trade journals and handbooks and leads up to simple geometric and trigonometric formulæ. The practical rather than the theoretical side of mathematical science is taught.

Mechanism. — Under this head is treated the construction and uses of the various machine tools that every shop contains. The names and uses of every part are learned in school as well as shop. The reason for certain shapes of the various parts, kinds of materials used in their construction, shapes and kinds of tools used and their cutting action is clearly pointed out in the analysis of the shop work.

Physics. — Studying of laws underlying all mechanics. The study of working examples is emphasized rather than the theories of abstruse phenomena.

Chemistry. — Chemistry takes up the nature and qualities of metals and salts, tests that can ordinarily be applied to fractured metals, hardening and tempering processes.

Commercial geography comprehends the study of the source of supply of the various industries, preparation and methods of transportation, cost of materials, railway systems, waterways, etc.

First aid to the injured. — There is no place where accidents are more liable to happen than in the shop, and some knowledge of how to care for them is a valuable asset to the workman.

Drawing. — Drawing is taught by sketching parts of machines, etc. Later the boy draws them mechanically.

Civics and American history. — Civics and American history are taught so as to give the boy a good training for citizenship.

Business methods. — The study of the organization of shop systems, including the increasing of materials, laying out of work, tagging, inspecting and routing of work in shop. Also general office systems.

#### WAGE SCALE FOR SHOP WORK.

Boys receive pay for the weeks they are at work at the shop on the following basis :

First year shop work, 10 cents an hour.

Second year shop work, 11 cents an hour.

Third year shop work, 12 cents an hour.

First year they make \$5.50 a week, or \$165 a year.

Second year they make \$6.05 a week, or \$181.50 a year.

Third year they make \$6.87 a week, or \$206.25 a year.

This is a total of \$552.75 for the three years. These rates are higher than the former apprentices have been receiving, the manufacturers having of their own accord raised the prices.

20 boys last year earned.....	\$3,465.00
20 boys earn this year.....	3,711.50
20 boys will earn next year.....	4,631.25

Total earnings..... \$11,807.75

Here is an opportunity for the boy to continue in school and earn money. He really gets more than he would by running errands. Again, the parents of a great many boys cannot afford to keep their children in school under the usual conditions.

#### WORCESTER PART-TIME INDUSTRIAL SCHOOL.

The city of Worcester, Mass., will open in the high school in September a part-time industrial school. This is similar to the Fitchburg plan, being established by the manufacturers and approved by the school committee. The course of study is the same, except the boy begins his shop work the first year in the high school, while in the Fitchburg he begins after he has completed the freshman class in the high school. The bond and indenture are exactly the same in both places. The wages received by the Worcester school are higher than the Fitchburg, as is shown by the following:

- First half of first year, 10 cents per hour.
- Second half of first year, 10½ cents per hour.
- First half of second year, 11 cents per hour.
- Second half of second year, 11½ cents per hour.
- First half of third year, 12 cents per hour.
- Second half of third year, 13 cents per hour.
- First half of fourth year, 14 cents per hour.
- Second half of fourth year, 15 cents per hour.

#### SIMILAR PLAN AT BEVERLY.

Two years ago the city of Beverly, Mass., through Superintendent of Schools Safford, made arrangements with the principal industry in the city, the United Shoe Machinery Company, to establish a part-time system somewhat similar to the Fitchburg scheme. The boys are divided into two groups, A and B. While group A is at school, group B is in the factory, under an instructor, where they receive training in machine shop practice. The course of study is similar to the one in the Fitchburg plan. The boys are paid by piece work and they average from \$6 to \$12 per week. The Lawrence Industrial School, the Providence Technical High School, and the New Haven Technical High have arranged for part-time pupils.

Enough has been said to show that a part-time system of education is possible in every community. While in cities of 100,000 it may be possible to erect a separate industrial school building for the education of children, yet in small cities of 8000 or 10,000, it may be carried on in connection with the public schools with little additional expense.

## TURKISH WOOL TRADE.

AMONG recent consular and trade reports there appears an interesting statement of the wool trade of Asiatic Turkey and the increased shipments to the United States, as follows :

The renewed activity in American carpet factories is indicated by the heavier importation of wool for this purpose, amounting last year to 136,220,511 pounds, worth \$16,706,728, or more than double that imported in 1908. The increased importation has continued in 1910, amounting in the first four months to \$5,203,876 worth, against \$4,827,022 in the same period in 1909, and \$1,993,843 in the 1908 period. China furnished \$4,000,000 worth of the carpet wool imported by the United States during 1909. Large quantities also came from Asiatic Turkey, the declared exports through the various American consulates aggregating \$1,514,703, divided as follows : Aleppo, \$513,059 (against only \$185,268 in 1908); Bagdad, \$449,554; Beirut, \$401,636 (only \$121,325 in 1908); Smyrna, \$119,353; Samsoun, \$17,216; Mersine, \$13,884. The total shipments were three times as large as those in 1908. The following detailed report of this trade at Bagdad is furnished by Consul Frederick Simplic.

In 1909 Bagdad sent \$449,554 worth of wool to America, against \$237,655 worth in 1908. The average price per bale of 340 pounds last year was \$50. Wool is also shipped to England and France in large quantities. The total amount exported in 1909 was about \$1,650,000, according to merchants' estimates. Exact figures are hard to obtain in Bagdad, because few public records are kept. The three kinds of wool sold from this market are Arab, Awassi, and Karadi (Kurdish).

Arab wool is clipped from sheep grown on the flat plains of Mesopotamia. It is the finest in quality, and brings a better price than the other kinds. It is of a fine, "crinkly" fiber, and has a bright appearance. Arab wool goes mostly to the Continent and England, being shipped from here to Trieste, Marseilles, Hamburg, and London. In 1906 about 300 bales were shipped to Japan, but no repeat orders have come from there. In Europe this Arab wool is used mainly in the manufacture of blankets and the coarser woolen textures. It is estimated that a minimum of 11,000 bales (of 340 pounds each) leaves the Tigris towns of Kut and Amara, and Bagdad, for Europe each year.

Awassi wool is named for a nomad tribe, the "Aweiz," who live on the plains and highlands between Aleppo and Mossul. A fiction says the word is derived from the Arabic term "awas," meaning soft. This wool probably originates from a crossing of the Kurdish hill sheep and the animals owned by the nomad Arabs of the plains. Its fiber seems coarser than Arabic, but finer than the Kurdish. Approximately 6000 bales of Awassi wool is sent out each year from this district, most of which

goes to America. I am told it is used in the States mostly for the manufacture of carpets and coarser worsteds. Nearly all the Awassi wool sold from the Bagdad market is grown on the steppes north of the city. Its colors are mainly fawn, piebald, and dark brown. From 16 to 25 per cent of Awassi wool clips are colors, the rest turning out white on washing.

Karadi wool comes from the sheep of the Kurdish hills about Mossul and on the Persian frontier. About 11,000 bales of Karadi wool are exported annually from Bagdad, and nearly 80 per cent of this goes to America. I am told it is used largely in the manufacture of carpets. It shows about the same proportion of colors as the Awassi—that is, from 16 to 25 per cent.

Wool is sold in Bagdad by the “maund,” equal to  $12\frac{1}{2}$  Constantinople “okes,” or 35.375 pounds. Quotations are in beshlicks (equal to 22 cents). Prices on April 5, 1910, per pound, were: Medium washed Arab,  $11\frac{1}{4}$  to  $12\frac{3}{8}$  cents; unwashed Awassi,  $10\frac{1}{4}$  to  $10\frac{5}{8}$  cents; unwashed Karadi,  $9\frac{3}{8}$  to  $10\frac{1}{4}$  cents.

Power presses are used at Bagdad for baling wool, all of which comes in—by caravan or Tigris River raft—in the form of “sheleefs” or fleeces packed by hand in great bags and weighing about 250 pounds. Arab wool is usually washed on the sheep’s back. Karadi and Awassi wool, however, nearly always comes to market dirty. In washing it loses from 15 to 35 per cent in weight, according to the thoroughness of the wash and the extent to which dirt and extraneous matter is present in the wool.

Spring rains and a warm winter indicate a heavy wool clip for all eastern Arabia in the current season.

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### CHINESE WOOLEN MILLS.

A LITTLE over a year ago the Chinese woolen mills, built under the supervision of the Board of Military Affairs, began operations at a convenient location near Peking. These mills were not started primarily as a commercial venture but as an experimental station and an industrial training school for native students. In the Daily Consular and Trade Reports for August 3, 1910, Student Interpreter Esson M. Gale of Peking furnishes the following information concerning these new mills:

The P’u Li Woolen Mills, located on the Peking-Kalgan Railway, six miles north of Peking, began the manufacture of woollens in May, 1909. The mills were built under the general supervision of the Board of Military Affairs for the purpose of manufacturing uniforms for the Chinese army, and later it is hoped to supply uniforms for the navy. The institution is also serving as



an industrial training school for the natives of this great wool-producing section of China.

The buildings, erected by an English company, with offices at Shanghai, cover about four acres, and are constructed of native brick, with steel-trussed roofs and cement floors. Being practically fire-proof is an item of considerable importance when the isolated location of the buildings is considered. The mills are equipped for the complete process of woolen manufacture, from the time the unscoured wool is delivered at the factory to the finished product of tailored uniforms and blankets.

#### MACHINERY AND OPERATIVES.

No expense has been spared in securing the machinery. The scouring machines, driers, oilers, willeys, dreadnaughts, carders, milling machines, and machines for finishing, raising, brushing, cutting, and pressing came from Huddersfield, and the 36 looms from Leeds. The chemicals for the "scour" were supplied by a German firm. There are 40 Singer sewing machines, but it is proposed to install 80 or 100 more before the tailoring department reaches full equipment. The machinery was set up by an expert brought from England.

Four skilled workmen from Yorkshire have been engaged on a two years' contract to superintend the operation of the mills. As soon as native workmen are sufficiently trained, it is the intention of the Chinese authorities to dispense with all foreign service. The English experts receive annual salaries to the aggregate of \$7,835, with living quarters and transportation expenses from and to their homes in England. Of the 300 native workmen employed, some were originally recruited from the local country population, but most of them are young men, from 18 to 22 years of age, who came from Peking, Tientsin, and Paotingfu to learn the processes of woolen manufacture and who, upon their return, expect to establish the industry in their native towns. It is probable that in a few years a number of woolen mills will be established in this part of China, which is at the entrance of a vast wool-producing district. As the Chinese demand for woolen goods made up into uniforms for students, police, and railway employees increases, a considerable market will be developed. The native operators are paid a daily wage of 13 to 17 cents gold, with quarters furnished by the company.

#### OUTPUT.

Though it is the intention of the authorities eventually to restrict the output to military blankets and uniforms, a certain amount of worsteds suitable for general consumption have been manufactured by way of experiment. Over 40 patterns have been made up. As the Chinese have been used to only one plain dyed-in-the-wool fabric, it will take some time to create a demand



for these goods showing a pattern. The chief product of the mills is woollens for heavy winter uniforms and goods, weighing 3 pounds to the yard, for overcoatings, and still heavier goods for blankets. The blankets are made waterproof and will stand a water test of fourteen days. The 400 students in the military schools at Ch'ingho and the students in the mills have been supplied with black or drab colored uniforms.

A limited amount of fine Australian wool is made up into officers' uniforms. This class of goods must be "faced" to suit the taste of the Chinese, who do not care for goods showing the weave. The native wool is a coarse, long-fiber variety, brought from the great wool-producing districts of Mongolia, Shansi, and Shensi. The fiber somewhat resembles hair with little "curl," and is not suited for felting purposes. The ordinary black or drab uniforms and a kind of khaki are manufactured of this variety. Camels' wool, locally produced in large quantities, is made up into blankets, and goods made of camels' and sheeps' wool mixed are also produced. The materials sufficient to make a suit of clothing cost less than \$2 gold.

The mills have not been steadily running until recently, owing to the necessity of training the native operators. It is estimated, however, that the output may reach 432,000 yards per annum, each of the 36 looms having a capacity of 40 yards per day of ten hours. As 3 yards are sufficient for one uniform, the mills may supply two out of the fourteen divisions of the Chinese army with uniforms and blankets, a division consisting of about 6,500 men. It is now proposed to have other mills at Hankow and Shanghai further increase the supply for the troops of uniforms and blankets manufactured of native materials by native workmen.

In spite of the cheapness of the raw material, it is said that the total cost of production of goods at the P'u Li mills exceeds the prices at which the same goods might be secured from abroad. It is to be observed in this connection, however, that the mills have been erected by way of an experimental station and as an industrial training school for the natives, rather than with the expectation of making them a paying commercial enterprise.

## From Press and Platform.

### NO NEW WOOLEN MILLS IN IOWA.

AND THOSE NOW THERE WOULD HAVE TO SHUT DOWN IF  
THE TARIFF WAS REDUCED.

*(From the Des Moines Capital.)*

NOT a new woolen mill has been built in Iowa in twenty-five years. During that period several woolen mills have gone out of existence.

If the manufacture of woolen goods, woolen yarns, etc., were as profitable as the enemies of the tariff indicate, would this fact be true? If money were to be made in the woolen manufacturing business would there not be increased woolen mills all over the West, where the sheep are and where water powers are going to waste? Woolen mills consist of light machinery. Water power is just the thing for them. Yet our water powers are going to waste and the majority of our woolen mills are shut up.

Our two Iowa senators have devoted much attention to Schedule K of the Payne Tariff bill. Schedule K refers to wool and woolen goods. They are still talking against Schedule K. Senator Dolliver in his speech printed in the "Chicago Tribune" made assaults on Schedule K in detail.

Yet under Schedule K imports of woolen manufactured goods continued to increase month by month. Germany is our great competitor in woolen yarns and woolen knit goods. According to Government statistics, in the first nine months of the year 1910, the American people imported manufactures of wool amounting in foreign value to \$19,178,024, and also manufactures of cotton valued abroad at \$53,436,869. In the first ten months of the present fiscal year, ending with April, our total imports from Germany alone amounted to \$144,584,436, as against \$116,454,931 in the corresponding months of the fiscal year 1909. The official statement from which we quote says that "manufactures form by far the greater part of the articles imported from Germany." Our imports are increasing every day under the lower duties of the Payne tariff.

If the woolen schedule known as Schedule K in the Payne

tariff were made low enough to satisfy the tariff reformers, every woolen mill in Iowa would close. The great woolen mill of the Sheuerman Brothers in this city could not compete with the mills in Germany and would close. The little woolen mill at Dale City, Guthrie County, would also close. We are not sure that the Dale City mill is running. It may have been closed years ago. The woolen mill formerly run at Bonaparte, Iowa, by Meek Brothers was closed some years ago. Winterset, Iowa, at one time had a prosperous woolen mill owned and operated by Nelson W. Munger, but that mill closed years ago. The founder of the mill died to-day in Des Moines. Marshalltown and Bloomfield formerly had flourishing woolen mills, but they are no more. Woolen mills were to be found in many good county seats. Eddyville was a noted place for the manufacture of woollens a number of years ago. So also was Marysville, Marion County. All these woolen mills have passed out of existence. If Schedule K in the Dingley tariff, the predecessor of Schedule K in the Payne tariff, had not been low, some of the woolen mills of Iowa would have remained to keep company with Sheuerman Brothers of Des Moines.

You may love your favorite statesmen. You may sympathize with their ambitions for leadership; you may cherish them as friends, but can you go with them and vote against the building of woolen mills in Iowa and against the introduction of additional sheep into this State?

The politician talks about the tariff because there is nothing else to talk about. He is not in business. He is not growing sheep. It makes no difference to him whether there shall ever be a woolen mill in Iowa or not. His salary is fixed by law.

But it is different with the farmer. Woolen mills along our streams in Iowa would help the farmer. He could grow more sheep. The city man would be helped because more sheep would mean cheaper mutton. It is progressive to advocate woolen mills and more sheep.

## TARIFFS AND PRICES.

*(From the Canadian Textile Journal.)*

A COMMON misconception which gets into the minds of some writers and politicians, and which, by frequent repetition, becomes accepted as a principle, is that a tariff necessarily raises the

price of an article in the protected market. It may or it may not, according to the conditions and the nature of the articles protected. The history of tariff legislation in such manufacturing countries as the United States, Germany, and France affords so many and such varied cases where prices have actually been lowered after a protected industry has been established that one would think this fallacy had been exploded long ago. Of course, where a new industry is being created by a protective tariff the first effect of the tariff is often to raise prices till the home industry has been created, but when the industry has been put on its feet the competition of manufacturers within the protected area tends to bring down prices often to a lower point than before the home industry existed. We have instances of these even in Canada, as, for example, in the watch case industry some years ago.

Then, again, there is the question of value as well as price, and this qualification applies to the textile industries. The cotton industry was established in the United States as well as in Canada by a protective tariff, but we doubt if any countries in the world are giving better value in cotton fabrics than these two. The United States is continually increasing its exports of cotton fabrics, and the Canadian trade shows one striking example. Those who know the Chinese people in their home land will testify that there are no better judges of value in cloth—a skill acquired by their necessities and the poverty of the common people. Now Canada, as well as the United States, has been exporting for years large quantities of gray cotton cloth to China, the exports from Canada alone amounting to several million yards. The Chinese pay a higher price for this cloth from us than they do for the same fabrics from Europe simply because there is no sizing in it, and it will give better results in wearing. A recent report from one of the German consuls in the United States makes the same deduction from a comparison of United States and German woolen cloths for men's wear.

The woolen tariff of the United States probably errs on the side of excess in protection in certain materials, but with all this a woolen mill superintendent, who has had several years' experience in the old country, in Canada, and in the United States, writes us that, value for value, American manufacturers can beat either Canadian or English makers of cloth for men's wear. A recent issue of this journal gave a comparison of prices

in Chicago and Toronto and Montreal which rather surprised some of our Canadian people, who had the notion that there was no cheap clothing in the United States.

If the United States manufacturers do not produce good clothing at a reasonable price, how is it that they are able to export to this country ready-made clothing and garments to the amount of between \$700,000 and \$800,000 in spite of the Canadian duty and in competition with manufacturers in England and Germany?

### THE HOME MARKET.

*(From a speech before the Silk Association of America, February 11, 1910, by Hon. Philip P. Campbell of Kansas.)*

I HAVE been in markets where everything was cheap — labor, men, homes, and the prices of everything. A complete outfit of clothes could be purchased for ninety cents, and yet half the people in the country wore no clothes at all, and the other half was poorly clad. Everything was cheap, but the people were too poor to be consumers at any price. They could not take advantage of the cheapest kind of a cheap market.

Probably it is the fault of Congress. It may be the real cause is Joe Cannon. But whatever the cause, no one yet invented, discovered, or created a market in which it is possible at the same time to sell at a high price and to buy at a low price. Until that kind of a market is found, it will be an act of wisdom on our part to keep our market on the high plane it occupies to-day.

Why, if the men who work on your spindles get good wages they will be able to pay the farmers of Kansas and of Iowa and of Wisconsin and other States good prices for butter and eggs, for beef and pork, for meal and flour, and everything else that is consumed from day to day, and the farmers in turn will be able to buy from you and from others who are employing men and producing something to sell. So, in this way, one industry will keep up another, if they work hand in hand on the same level.

I know that some of you have the idea that if there was free trade in farm products, or reciprocity with Canada, it would be a good thing for this country. But the Canadian farmer would not be as good a customer for your products as is the Kansas farmer.



You have seen this country increase the number and value of its farms, its railroads, its shops, its factories, its mills, its mines, its wholesale and retail business houses until our country — and our whole country, East and West, North and South — enjoys a prosperity unequaled in any other country in the world. And all this has been brought about by the American manufacturer buying the products of the American farmer, and the American farmer buying the products of the American manufacturer.

Let me impress it upon you; you cannot find a better market away from home than you have and can keep at home, and the home market I plead for. That market will continue the prosperity of this country if we continue to protect it.

### THE LOW TARIFF VICTORY IN 1892.

IN some phases 1893 was the worst year of the period; in other conditions the days of 1894 were the darkest days, while in other lines of industry 1895 and even 1896 showed the greatest degree of business stagnation and ruin. Our foreign commerce which had just reached its greatest height in 1892, approaching \$2,000,000,000, fell off by 1895 to about \$1,500,000,000. Our exports of merchandise, which had exceeded \$1,000,000,000 in 1892, fell to under \$800,000,000 in 1895. Our balance of trade which had been \$200,000,000 in 1892 was only \$75,000,000 in 1895, while in 1893 we actually had an adverse balance of over \$18,000,000. Our customs receipts, which in 1890 and 1891 had averaged \$225,000,000, fell to \$131,000,000 in 1894, and \$152,000,000 in 1895. Our total revenue from all sources, which was over \$400,000,000 in 1890, fell to less than \$300,000,000 in 1894. Our treasury balance, which for years had always been on the right side of the ledger, showed a deficit of \$70,000,000 in 1894, \$45,000,000 in 1895, and \$25,000,000 for the fiscal year 1896. Our bank clearings decreased steadily from 1892, and in 1894 were only about \$45,000,000,000, while during the last few years they have averaged over \$150,000,000,000. Our pig-iron production of 9,000,000 tons in 1890 fell to a little over 6,000,000 in 1894. The four and five thousand miles of railroad, which were being built in 1891-1892, fell to 1650 miles in 1895. Our interest-bearing debt increased, even the deposits in the savings banks were withdrawn, but the worst showings of all were in the failures. In 1892 there were only \$114,000,000 in liabilities,

in 1893 there were \$346,000,000, and in 1896 there were about \$226,000,000, while since that time they have averaged but a little more than over \$100,000,000 each year. This in part in a general way gives the story of that awful period when Democracy ruled at the White House and at both ends of the Capitol. — *Hon. Henry C. Loudenslager.*

#### MR. FOSS ON FREE WOOL.

EUGENE N. FOSS has been heard from. Mr. Foss is the gentleman who, having battledored and shuttlecocked between political parties, finally landed in the House of Representatives as a Democrat from a Massachusetts district. Mr. Foss has made his maiden speech, and he devoted it to the "iniquitous tariff." His plan for the Democratic party is to raise a cry for an extra session of Congress next spring to revise the tariff, the battle-cry to be "free wool and cheap clothing." Said Mr. Foss:

To-day millions of our people are deprived of comfort and health, and even of life, by the so-called protective tariff on wool and woollens for the benefit of the sheep ranchers and woolen trusts.

Certainly we have heard pretty much the same cry before. Wasn't it issuing with strong lungs from Massachusetts? Yes, yes, to be sure. "Give us free hides and cheap shoes!" That was the way the "battle-cry" ran. "Give us free hides and cheap shoes. To-day millions are deprived of comfort and health by the protective tariff on hides," and so on.

Well, what happened? The very tariff bill which Mr. Foss now assails placed hides on the free list. Surely the "cheap shoes" followed? Not a bit of it. Hides, leather and — shoes are higher than ever.

Something seems to be askew with the theory of Mr. Foss. But that is not singular. Theory frequently goes to pieces when it runs up against plain facts. — *Philadelphia Inquirer.*

#### NOT DUE TO THE TARIFF.

SENATOR DEPEW, in a magazine article, punctures a few myths. He calls attention to the fact that the National Clothiers' Association has announced that it must increase the price of \$12 suits

by \$3 and add \$5 to the price of a \$20 suit. It gives out that these increases are due to the tariff.

But the senator says that the cloth in a \$12 suit amounts to only \$3, and the cloth in a \$20 suit to \$5. That is the average cost of all the goods that go into such a suit. The tariff on the wool amounts to 75 cents on the \$12 suit and to \$1.25 on the \$20 suit. And this tariff has been in existence for twelve years, without change, no change having been made in the last revision of the tariff.

How can they say that the Payne-Aldrich bill warrants such increases when the duties remained the same as they have been for a dozen years past?

And if the whole of the tariff were added to the price of clothing it could make only 75 cents difference on a \$12 suit and \$1.25 on a \$20 suit. But in each case the manufacturers talk about adding four times the total amount of the tariff.

This illustration is important to show what mysterious things happen under the excuse of the tariff. Instead of being criticised for attempting to make such increases, the politicians defend the clothing makers on the theory that they are scoring a point against the tariff bill. So every politician becomes a defender of an unwarranted increase on the part of the makers of clothing. And that's politics. — *Cedar Rapids, Iowa, Republican.*

## CHINESE AND JAPANESE COMPETITION.

CHINA is threatening to repeat what has been done in Japan in the way of manufacturing for export. Shanghai has eight large cotton mills, in which are employed over 30,000 Chinese at spinning and weaving. In one mill 1000 persons are employed in day and night shifts, the children earning about four cents a day, and the wages of adults averaging no higher than 20 cents a day. Modern machinery is being imported from foreign countries and Chinese operators are said to be quick to learn. The Chinese will soon make a good deal of their own cotton goods, as, in fact, they do now. The United States has lost a good deal of its Chinese trade as a result of unfair Japanese competition. England is suffering to a less extent in the same way. The Chinese are sending pig iron to the Pacific coast, and will no doubt be sending cotton and other products in time if not kept out by efficient protection to industries in this country. Ameri-

can workmen cannot compete in point of wages with either Japanese or Chinese. Japanese workmen produce large quantities of rugs that are now sold in the United States, the work on which costs in Japan only two or three cents a day. This takes bread out of the mouths of American workmen, but that is the kind of competition the Democrats want to subject American workmen to by the reduction or removal of tariff duties. — *American Economist*.

#### SENATOR BAILEY ON INSURGENCY.

I WANT to say this, Mr. President, and I do not say it in idle compliment. I believe that those who are styled insurgents are sincere and patriotic men; but I also believe their differences with the Republican party are radical and incapable of adjustment. I will tell you why I believe it. Take this very question of the tariff. If the Republican doctrine has been right, then all that the Republicans needed to do in order to insure an absolute agreement among themselves was to fix a tariff duty at least not below the point of protection. All above the point of protection with Republicans, who subscribe to the Republican theory of a protective tariff, is an unimportant detail, because if the protective point was sufficient to keep the foreigner out with his cheaper goods, going higher than that could do no more. If the protective point, which keeps the foreigner out with his goods, is sufficient to create domestic enterprises and maintain them, and if the domestic enterprises so created and so maintained will compete with each other and give the American people the benefit of low prices, then it is of no importance whether this protective duty was much or little above the protection point; and the whole question as to whether the protective duty shall be 45 or 75 per cent is an immaterial detail.

#### ROOSEVELT ON PROTECTION (1904).

EVERY class of our people is benefited by the protective tariff. During the last few years the merchant has seen the export trade of this country grow faster than ever in our previous history. The manufacturer could not keep his factory running if it were not for the protective tariff. The wage-worker would do well to remember that, if protection is "robbery" and is to be punished accordingly, he will be the first to pay the penalty; for either he

will be turned adrift entirely, or his wages will be cut down to the starvation point. As is conclusively shown by the bulletins of the Bureau of Labor, the purchasing power of the average wage received by the wage-worker has grown faster than the cost of living, and this in spite of the continual shortening of working hours. The accumulated savings of the workingmen of the country, as shown by the deposits in the savings banks, have increased by leaps and bounds. At no time in the history of this or any other country has there been an era so productive of material benefit alike to workingmen and employer as during the seven years that have just passed.

### ATLANTIC COAST, THE REVENUE PRODUCER.

THE Atlantic coast is still the great tariff-revenue-producing instrument of the government. About 80 per cent of all the customs receipts — which constitute one-third of the revenue of the government — come in at the four ports of New York, Boston, Philadelphia, and Baltimore. Let us be accurate and quote the receipts as they are presented in the annual report of the Secretary of the Treasury for 1909:

At the port of New York the aggregate receipts were \$202,655,809.66; at Boston the receipts were \$27,395,345.44; at Philadelphia the receipts were \$18,693,641.89; at Baltimore they were \$3,897,350.51. The next high revenue-producing ports were the ports of Chicago, \$9,271,198.07; New Orleans, \$6,998,911.50; San Francisco, \$6,585,494.83; St. Louis, \$2,313,163.40; Detroit, \$2,174,287.27; Tampa, \$1,756,057.20; Cleveland, \$1,645,888.95, and Puget Sound, \$1,426,017.19. The total customs receipts as shown by this report were \$305,701,523.65. — *From a speech in the House of Representatives, June 24, 1910, by Hon. J. Hampton Moore.*

### HEMP DEFIBRATING MACHINE.

THE anniversary edition of the "Manila Times" (Manila, P.I.) announces that a practical form of hemp defibrating machine has at last been devised. "Aside from solving the labor problem in this industry, this machine yields a uniform product that is absolutely free from all pulp, which causes deterioration, and thus puts hemp in a class with other standard raw materials.



The strength of the hemp stripped by this machine is from 60 per cent to 100 per cent stronger than hand-stripped.

"It is believed that hemp has a great future for the manufacturer of textiles, hats, etc. While it is not believed that it is possible to spin hemp, there is some very beautiful cloth made from hemp now in the Philippines. It is stated that when this machine has reached a point where the supply may be almost equal to the demand, hemp will be much more economically produced than by the older method, thus securing a further benefit to the consumer as well as the manufacturer." — *American Industries*.

### THE LATE SENATOR McENERY.

SAMUEL D. McENERY, who died in New Orleans June 28, 1910, was probably the strongest and most conspicuous Democratic protectionist in the United States. He was a protectionist through and through. Not a protectionist in spots and for the sake of certain local interests or industries needing protection, as were so many of his Democratic confrères in the Senate; not voting for here and there a schedule which would prove of value to his own constituents, and then voting against all other protective schedules; but a sound, consistent, conscientious protectionist, who believed in protection for the sake of protection, and voted accordingly. He voted with the Republicans for the Dingley bill of 1897, and he voted for the tariff bill of 1909 in its entirety. Not only did he vote as he believed, but in his speeches in the Senate he proclaimed himself an all-round protectionist. — *American Economist*.

### THE TURN WILL COME.

It is a disgrace to big, free America, with its millions of working people, laboring under better conditions than exist anywhere else in the world, that a few hoots of the owls scare them to cover so quickly. But the public mind is rapidly changing in regard to all great public questions, as individualism is asserting itself, and the warm weather, the chug of the power boat, the smell of old ocean and the thoughts of the pine woods are overcoming pessimism and the vacation period is working wonders. With the beginning of September a turn will come that should result in starting every idle wheel in every American industry.

Once under full headway, wages will be advanced and the American workman will rest easy in the knowledge that a protective tariff will keep out the product of labor receiving, perhaps, but half the wages paid him. — *Fibre and Fabric*.

#### LINCOLN'S TARIFF ARGUMENT.

LINCOLN had a way of stating great truths in a convincing way. That was one of his characteristics, and he made the best argument for a protective tariff I ever heard. He used to say if you bought goods in Europe this country got the goods, but Europe got the money, while if you bought at home we got both goods and money. There is the whole tariff principle in a nutshell. — *Washington Post*.

#### PROTECTION BENEFITS LABOR.

THE very foundation of our country is a protective tariff, and without it we would be the dumping ground for every manufacturing nation on earth. American labor enjoys higher wages, shorter hours, and more pleasures and luxuries than labor anywhere in the world, and the sole reason that such is the case is our protective tariff. — *Fibre and Fabric*.

DECISIONS OF THE TREASURY DEPARTMENT ON  
THE WOOLEN TARIFF.

(T.D. 30382.)

**Abstract No. 22764.** — WOOL — SHRINKAGE — DRYING SUBSEQUENT TO IMPORTATION.  
— Protest 333815 of Schoellkopf & Co. (Buffalo).

TREASURY DEPARTMENT, March 1, 1910.

The merchandise consisted of sheepskins with the wool on. The importers contended that the weight of wool as found by the appraiser was excessive. Protest overruled.

MCCLELLAND, *General Appraiser*: The merchandise in question consists of 100 bundles of sheepskins entered as 17,383 pounds of skins and 14,223 pounds of wool. . . . The appraiser estimated, under the regulations prescribed by the Secretary of the Treasury (T.D. 22702), the quantity of wool that said skins would yield by shearing the wool from one of the skins contained in each of ten bales selected by a representative of the protesting company, and found 75.4 per cent of the total weight to be wool. An allowance of 5.4 per cent was made for foreign matter, leaving 70 per cent, on which basis duty was assessed on the importation. Protest was lodged against the quantity of wool so returned by the appraiser, and in support of importers' contention testimony was produced showing that said skins were placed in vats of water, where they remained about four days, then taken out and sulphate of sodium applied to the flesh side of the skins, and the wool thereby removed. As a result of this process protestants state that they found 56 per cent of the total weight to be wool, and on this basis they claim duty should have been assessed.

We think it reasonable to assume that wooled sheepskins which have remained in water four days and the wool subsequently dried would show a less percentage of weight of wool than if they were sheared and weighed in the condition imported. The difference in the quantity of wool returned by the appraiser and that found by the importers is accounted for by the methods employed to obtain the respective results; and we have no reason to doubt the correctness of either. But, inasmuch as duties are to be assessed on merchandise in the condition imported, and as no error has been shown in the appraiser's return, we see no reason to disturb the assessment of duty by the collector.

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(T.D. 30405.)

*Drawback on carded wool.*

Drawback on carded wool manufactured by E. S. Parkhurst & Co., of Gloversville, N.Y., with the use of imported washed wool. — T.D. 28133 of May 3, 1907, extended.

TREASURY DEPARTMENT, March 7, 1910.

SIR: The Department's regulations of May 3, 1907 (T.D. 28133), providing for the allowance of drawback on carded wool manufactured by E. S. Parkhurst & Co. of Gloversville, N.Y., with the use of imported wool in the grease, are hereby extended so far as applicable, to cover carded wool manufactured by said company wholly from imported washed wool, in accordance with the sworn statement dated December 9, 1909, transmitted herewith for filing in your office.

The abstract to be filed with each entry should show the weight of the imported wool used, the weight of the cleaned wool laid down in batch, the weight of the emulsion added, the percentage of oil and soap used in such emulsion, and the net weight of the carded wool produced, with the additional data required by T.D. 28133, so far as applicable to the present case.

Samples should be taken by the collector and submitted to the United States chemist for the purpose of ascertaining the percentage of oil in the exported product, and the weight upon which to base drawback should be that of the exported carded wool less the oil present therein.

In liquidation, the quantity of imported wool which may be taken as the basis for the allowance of drawback may equal that used as declared in the drawback entry, after official verification of exported quantities, provided the same shall not exceed the net weight of the carded wool exported, ascertained as herein provided, with the proper quantity added thereto, to compensate for worthless waste, as shown in the sworn abstract.

Respectfully,

JAMES F. CURTIS,  
*Assistant Secretary.*

(44613.)

COLLECTOR OF CUSTOMS, *New York.*

(T.D. 30500.)

*Olive oil.*

Use of spindle oil, or a rather crude kerosene, as a denaturant of olive oil to be discontinued.

TREASURY DEPARTMENT, April 6, 1910.

SIR: Referring to your letter of the 31st ultimo, and to T.D. 29957 and 30006 of August 20 and September 23, 1909, respectively, I have to inform you that the use of spindle oil, or a rather crude kerosene, as a denaturant for olive oil will no longer be permitted.

The Department commends your action in requiring the importer to redenature certain olive oil in which spindle oil had not been successfully used as a denaturant.

Respectfully,

JAMES F. CURTIS,  
*Assistant Secretary.*

(67686.)

COLLECTOR OF CUSTOMS, *Providence, R.I.*

(T.D. 30645.)

**Abstract No. 23366.\*** — FUR WEARING APPAREL. — Protest 408049-31732 of Wilson Bros. (Chicago). Opinion by Chamberlain, G.A.

TREASURY DEPARTMENT, May 31, 1910.

Merchandise invoiced as Angora gloves and classified as wool wearing apparel under paragraph 382, tariff act of 1909, was claimed to be dutiable under paragraph 439 as fur wearing apparel. This contention was sustained, the Board finding that the gloves in question contained no wool and were in chief value of fur.

(T.D. 30691.)

**Abstract No. 23487.** — WOOL. — Protest 369003 of Wendell P. Yerrington (Philadelphia). Opinion by Chamberlain, G.A.

TREASURY DEPARTMENT, June 14, 1910.

Certain wool, assessed as wool of the first class washed, was found to be wool of the second class unwashed, as claimed by the importer.

(T.D. 30786.)

*Standard wool sample.*

Establishment of new standard sample No. 399-B to cover Cape of Good Hope native skin wool of a kempy character shorn from so-called Cape goat-sheep in a rundown condition.

TREASURY DEPARTMENT, July 15, 1910.

*To collectors and other officers of the customs :*

Pursuant to the authority contained in paragraph 364 of the act of August 5, 1909, the Department has caused to be prepared a new

\*BOARD OF  
UNITED STATES GENERAL APPRAISERS,  
641 Washington Street.

NEW YORK, June 17, 1910.

WINTHROP L. MARVIN, Esq., *Secretary, National Association of Wool Manufacturers, Boston, Mass.*

SIR: Replying to your letter of the 15th inst. *in re* decision of the Board, Abstract 23366 (T.D. 30645), you are informed that the merchandise in question did not contain any Angora goat hair nor any other wool fiber. It contained cat hair and rabbit hair, rabbit hair being the component of chief value.

Respectfully,

O. D. MADGE,  
*Chief Clerk.*



standard sample for use in the appraisalment and classification of wools of class 3, to be added to the standard cabinet of wool samples prescribed by Department's Circular No. 165 of December 20, 1900.

## SOUTH AFRICA.

*Sample No. 399-B.* — Cape of Good Hope native skin wool of a kempy character shorn from so-called Cape goat-sheep in a rundown condition. This sample to be applied to the classification of this particular wool only.

Standard samples Nos. 137 and 138, heretofore used in classifying Cape of Good Hope native skin wool not limed and Cape of Good Hope native skin wool limed, are hereby withdrawn from the cabinet of standard samples and are to be no longer used.

CHARLES D. HILLES,  
*Assistant Secretary.*

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(T.D. 30813.)

*Drawback on men's clothing.*

Drawback on men's clothing manufactured by Levy & Schilt, of New York City, with the use of imported materials. T.D. 27389 of June 4, 1906, extended.

TREASURY DEPARTMENT, July 20, 1910.

SIR: The Department's regulations of June 4, 1906 (T.D. 27389), providing for the allowance of drawback on men's clothing manufactured by the Stein-Bloch Company, of Rochester, N.Y., with the use of imported materials, are hereby extended to cover the exportation of men's clothing manufactured by Levy & Schilt, of New York City, with the use of imported woollen cloth, alpaca and canvas linings, Hollands, etc., in accordance with the manufacturers' sworn statement dated July 7, 1910, transmitted herewith for filing in your office.

There shall be filed with each entry an abstract from the manufacturing records showing the factory lot number, the kind of clothing, the quantity and size, the invoice style number, width and linear yards of each material used, together with the quantity of waste and value thereof, and the value of the imported material.

In liquidation, the quantities of imported materials which may be taken as the basis for allowance of drawback may equal the quantities declared in the drawback entry and shown in the sworn abstract after official verification of exported quantities, with the proper allowance for worthless waste.

Respectfully,

A. PIATT ANDREW,  
*Assistant Secretary.*

(77221.)

COLLECTOR OF CUSTOMS, New York.

COMPARATIVE STATEMENT OF IMPORTS AND EXPORTS OF  
WOOL AND MANUFACTURES OF WOOL FOR THE TWELVE  
MONTHS ENDING JUNE 30, 1909 AND 1910.

## GROSS IMPORTS.

ARTICLES AND COUNTRIES.	Quantities for Twelve Months ending June 30.		Values for Twelve Months ending June 30.	
	1909.	1910.	1909.	1910.
WOOL, HAIR OF THE CAMEL, GOAT, ALPACA, ETC., AND MANUFACTURES OF:				
UNMANUFACTURED—				
Class 1—Clothing (dutiable) —				
Imported from—	<i>Pounds.</i>	<i>Pounds.</i>		
United Kingdom . . . . .	54,606,609	35,647,997	\$11,809,956	\$8,629,515
France . . . . .	387,620	370,618	74,004	85,301
Argentina . . . . .	41,442,475	23,586,578	6,879,691	5,462,687
Other South America . . . . .	5,115,108	7,392,742	1,012,582	1,817,245
Australia and Tasmania . . . . .	30,617,828	34,574,678	7,547,130	8,861,538
Other countries . . . . .	10,411,353	10,032,617	2,132,235	2,374,766
Total . . . . .	142,580,993	111,604,330	\$29,455,598	\$27,231,052
Class 2—Combing (dutiable)—				
Imported from—				
United Kingdom . . . . .	18,334,147	26,907,556	\$3,851,934	\$6,746,157
Other Europe . . . . .	191,473	564,226	42,161	126,013
British North America . . . . .	1,484,641	1,607,927	306,713	425,430
South America . . . . .	1,907,693	2,504,980	381,631	628,932
Other countries . . . . .	34,305	29,546	9,120	4,613
Total . . . . .	21,952,259	31,614,235	\$4,591,559	\$7,931,145
Class 3—Carpet (dutiable)—				
Imported from—				
United Kingdom . . . . .	31,103,417	28,419,718	\$3,585,550	\$4,070,954
France . . . . .	1,508,904	3,571,697	204,721	532,570
Germany . . . . .	2,891,902	2,075,311	334,036	267,375
Russia in Europe . . . . .	7,121,774	15,280,453	798,027	2,272,610
Other Europe . . . . .	4,751,444	7,690,098	552,631	1,053,111
South America . . . . .	6,946,830	3,558,183	735,469	428,263
Chinese Empire . . . . .	32,272,982	38,061,762	3,119,597	4,463,445
Turkey in Asia . . . . .	7,017,879	9,262,975	858,810	1,462,644
Other countries . . . . .	8,260,920	12,500,822	935,996	1,509,675
Total . . . . .	101,876,052	120,721,019	\$11,124,837	\$16,058,647
Total unmanufactured . . . . .	266,409,304	263,939,584	\$45,171,994	\$51,220,844
MANUFACTURES OF—				
Carpets and Carpeting (duti- able)—				
Imported from—	<i>Sq. Yards.</i>	<i>Sq. Yards.</i>		
United Kingdom . . . . .	166,188	150,308	\$409,268	\$371,696
Other Europe . . . . .	671,647	714,212	2,918,464	3,099,619
Asia and Oceania . . . . .	201,634	337,594	692,050	1,101,532
Other countries . . . . .	2,909	3,868	12,730	18,974
Total . . . . .	1,042,378	1,205,982	\$4,032,512	\$4,591,721

COMPARATIVE STATEMENT OF IMPORTS AND EXPORTS OF  
WOOL, Etc.GROSS IMPORTS.— *Continued.*

ARTICLES AND COUNTRIES.	Quantities for Twelve Months ending June 30.		Values for Twelve Months ending June 30.	
	1909.	1910.	1909.	1910.
Clothing, ready-made, and other wearing apparel, except shawls and knit fabrics (dutiable) . .	<i>Pounds.</i> .....	<i>Pounds.</i> .....	\$1,416,935	\$1,813,542
CLOTHS— (dutiable)— Imported from—				
United Kingdom . . . . .	2,262,374	3,432,399	\$2,604,925	\$3,754,961
Austria-Hungary . . . . .	241,727	308,753	224,150	293,594
Belgium . . . . .	507,739	633,101	488,402	624,656
France . . . . .	135,846	115,406	192,063	138,272
Germany . . . . .	1,346,728	1,718,263	1,253,714	1,585,997
Other countries . . . . .	15,810	24,868	17,352	28,184
Total . . . . .	4,510,224	6,232,790	\$4,780,606	\$6,425,664
DRESS GOODS, WOMEN'S AND CHILDREN'S— (dutiable)— Imported from—	<i>Sq. Yards.</i>	<i>Sq. Yards.</i>		
United Kingdom . . . . .	16,397,198	26,054,902	\$2,609,746	\$4,275,049
France . . . . .	9,811,862	12,968,267	2,169,703	2,870,374
Germany . . . . .	8,223,248	9,167,031	1,931,766	2,187,680
Other countries . . . . .	187,439	154,884	50,321	41,037
Total . . . . .	34,619,747	48,345,084	\$6,761,536	\$9,374,140
Knit fabrics (dutiable) . . . . .	.....	.....	\$57,113	\$17,258
All other (dutiable) . . . . .	.....	.....	1,053,759	1,309,850
Total manufactures of . . . . .	.....	.....	\$18,102,461	\$23,582,175

COMPARATIVE STATEMENT OF IMPORTS AND EXPORTS OF  
WOOL, ETC.—*Concluded.*

## EXPORTS OF WOOL AND MANUFACTURES OF.

FOREIGN.				
ARTICLES.	1909.	1910.	1909.	1910.
	Quantities.	Quantities.	Values.	Values.
WOOL, HAIR OF THE CAMEL, GOAT, ALPACA, ETC., AND MANUFACTURES OF:				
UNMANUFACTURED—				
Class 1—Clothing (dutiable) lbs .	577,304	2,810,341	\$91,267	\$687,521
Class 2—Combing “ “ .	88,412	421,698	23,121	91,811
Class 3—Carpet “ “ .	2,829,883	647,433	483,864	79,858
Total unmanufactured . . . .	3,495,599	3,879,472	\$598,252	\$859,190
MANUFACTURES OF—				
Carpets and carpeting, sq. yds., dutiable . . . . .	10,057	13,052	\$42,534	\$67,894
Clothing, ready-made, and other wearing apparel, dutiable . . . . .			12,438	23,412
Cloths, pounds, dutiable . . . . .	62,420	31,598	58,909	26,606
Dress goods, women's and chil- dren's, sq. yds., dutiable . . . . .	847,245	151,337	68,331	29,307
All other, dutiable . . . . .			30,333	42,063
Total manufactures of . . . . .			\$212,545	\$189,282
DOMESTIC.				
WOOL, AND MANUFACTURES OF:				
Wool, raw, lbs. . . . .	28,376	47,520	\$4,668	\$10,077
MANUFACTURES OF—				
Carpets, yards . . . . .	67,088	55,596	\$66,653	\$57,152
Dress goods, yards . . . . .	22,212	40,244	13,786	27,906
Flannels and blankets . . . . .			49,351	69,031
Wearing apparel . . . . .			1,420,125	1,555,184
All other . . . . .			422,024	660,010
Total . . . . .			\$1,971,939	\$2,369,283

# QUARTERLY REPORT OF THE BOSTON WOOL MARKET FOR APRIL, MAY, AND JUNE, 1910.

DOMESTIC WOOLS. (GEORGE W. BENEDICT.)

	1910.			1909.
	April.	May.	June.	June.
OHIO, PENNSYLVANIA, AND WEST VIRGINIA.				
(WASHED.)				
XX and above . . . . .	33 @ 34	32 @ 33	31 @ 32	36
X . . . . .	32 @ 35	31 @ 32	30 @ 31	35
1/2 Blood . . . . .	36 @ 37	34 @ 35	33 @ 34	40 @ 41
1/4 " . . . . .	36 @ 37	34 @ 35	33 @ 34	40
1/8 " . . . . .	34 @ 35	32 @ 33	32 @ 33	38
Fine Delaine . . . . .	35 @ 36	34 @ 35	33 @ 34	40 @ 41
(UNWASHED.)				
Fine . . . . .	24 @ 25	23 @ 24	21 @ 22	26 @ 27
1/2 Blood . . . . .	33 @ 34	31 @ 32	28 @ 29	35 @ 36
1/4 " . . . . .	33 @ 34	30 @ 31	27 @ 28	34 @ 35
1/8 " . . . . .	31 @ 32	29 @ 30	26 @ 27	33 @ 34
Fine Delaine . . . . .	26 @ 27	25 @ 26	24 @ 25	33
MICHIGAN, WISCONSIN, NEW YORK, ETC.				
(WASHED.)				
Fine . . . . .	35 @ 36	33 @ 34	32 @ 33	39 @ 40
1/2 Blood . . . . .	35 @ 36	33 @ 34	32 @ 33	39 @ 40
1/4 " . . . . .	33 @ 34	32 @ 33	31 @ 32	38 @ 39
Fine Delaine . . . . .	34 @ 35	32 @ 33	31 @ 32	39
(UNWASHED.)				
Fine . . . . .	22 @ 23	21 @ 22	20 @ 21	25 @ 26
1/2 Blood . . . . .	32 @ 33	29 @ 30	27 @ 28	33 @ 34
1/4 " . . . . .	32 @ 33	29 @ 30	27 @ 28	39 @ 40
1/8 " . . . . .	30 @ 31	28 @ 29	25 @ 26	38 @ 39
Fine Delaine . . . . .	25 @ 26	24 @ 25	23 @ 24	32
KENTUCKY AND INDIANA.				
(UNWASHED.)				
1/2 Blood . . . . .	32 @ 33	30 @ 31	28 @ 29	34 @ 35
1/4 " . . . . .	30 @ 31	27 @ 28	26 @ 27	33 @ 34
Braid . . . . .	24 @ 25	22 @ 23	22 @ 23	28 @ 29
MISSOURI, IOWA, AND ILLINOIS.				
(UNWASHED.)				
1/2 Blood . . . . .	30 @ 31	28 @ 29	26 @ 28	32 @ 33
1/4 " . . . . .	29 @ 30	26 @ 27	24 @ 25	31 @ 32
Braid . . . . .	23 @ 24	21 @ 22	20 @ 21	25 @ 26
TEXAS.				
(SCOURD BASIS.)				
Spring, fine, 12 months . . . . .	67 @ 68	62 @ 63	60 @ 62	66 @ 68
"    "    6 to 8 months . . . . .	61 @ 62	56 @ 57	54 @ 55	60 @ 62
"    medium, 12 months . . . . .	62 @ 63	57 @ 58	53 @ 55	58 @ 60
"    "    6 to 8 months . . . . .	55 @ 57	50 @ 52	48 @ 50	53 @ 55
Fall, fine . . . . .	57 @ 58	52 @ 53	48 @ 50	53 @ 55
"    medium . . . . .	50 @ 52	45 @ 47	43 @ 45	50 @ 52
CALIFORNIA.				
(SCOURD BASIS.)				
Spring, Northern, free, 12 months . . . . .	62 @ 64	56 @ 57	54 @ 56	63 @ 65
"    "    "    6 to 8 months . . . . .	58 @ 60	52 @ 54	51 @ 52	58 @ 60
Fall, free . . . . .	49 @ 51	45 @ 47	44 @ 45	50 @ 52
"    defective . . . . .	36 @ 40	35 @ 38	33 @ 36	38 @ 42
TERRITORY WOOL: Montana, Wyoming, Utah, Idaho, Oregon, etc.				
(SCOURD BASIS.)				
Staple, fine and fine medium . . . . .	67 @ 68	62 @ 63	60 @ 61	69 @ 72
"    medium . . . . .	61 @ 62	56 @ 57	55 @ 56	63 @ 65
Clothing, fine . . . . .	62 @ 63	57 @ 58	56 @ 57	65 @ 67
"    "    medium . . . . .	60 @ 61	55 @ 56	54 @ 55	62 @ 63
"    medium . . . . .	57 @ 59	52 @ 53	50 @ 51	60 @ 61
NEW MEXICO. (Spring.)				
(SCOURD BASIS.)				
No. 1 . . . . .	62 @ 63	56 @ 57	54 @ 55	62 @ 63
No. 2 . . . . .	53 @ 55	47 @ 48	45 @ 47	52 @ 53
No. 3 . . . . .	42 @ 43	38 @ 39	36 @ 37	42 @ 43
No. 4 . . . . .	36 @ 38	35 @ 36	34 @ 35	39 @ 41
NEW MEXICO. (Fall.)				
(SCOURD BASIS.)				
No. 1 . . . . .	50 @ 51	45 @ 46	44 @ 45	50 @ 51
No. 2 . . . . .	43 @ 45	40 @ 42	38 @ 40	42 @ 45
No. 3 . . . . .	38 @ 40	34 @ 35	33 @ 34	38 @ 40
No. 4 . . . . .	35 @ 36	30 @ 31	30 @ 31	35 @ 36
GEORGIA AND SOUTHERN.				
Unwashed . . . . .	26 @ 28	24 @ 25	24 @ 25	30



DOMESTIC WOOL.

Boston, June 30, 1910.

In marked contrast to conditions prevailing a year ago the wool market during the months of April, May, and June has been exceedingly dull and values declining.

Owing to the decreased consumption since the first of the year the stock of old domestic wool carried over into the new clip will be comparatively large, although there are few desirable lines of territory wools suitable for worsted purposes left on the market.

In the country markets the clip is moving slowly, the ideas of growers and buyers being far apart; consequently much wool is being consigned with instructions to hold for future developments. Reports come from all over the country that the condition of the clip as regards staple is poor, especially throughout the northwest, where the winter has been very severe.

Manufacturers are still complaining of the unsatisfactory heavy weight season and it is generally conceded that 40 to 50 per cent of the worsted machinery through the country is idle. As the time approaches, however, for the light weight season, many predict a much more satisfactory outlook and it is hoped that with the decline of from 20 to 25 per cent in the value of wool during the past six months, manufacturers will be able to make such attractive prices on goods as will tempt jobbers and clothiers to place large orders.

GEORGE W. BENEDICT.

PULLED WOOLS. (*Scoured basis.*) (W. A. BLANCHARD.)

	1910.			1909.
	April.	May.	June.	June.
Brushed, Extra . . . . .	67 @ 70	65 @ 68	63 @ 67	72 @ 75
Fine A . . . . .	60 @ 63	58 @ 62	57 @ 60	65 @ 68
A Super . . . . .	55 @ 58	53 @ 57	52 @ 55	60 @ 63
B Super . . . . .	48 @ 50	47 @ 50	45 @ 48	50 @ 56
C Super . . . . .	35 @ 40	35 @ 40	33 @ 38	33 @ 37
Fine Combing . . . . .	60 @ 63	58 @ 62	56 @ 60	65 @ 68
Combing . . . . .	47 @ 52	47 @ 50	45 @ 50	52 @ 57
California, Extra . . . . .	60 @ 65	58 @ 63	58 @ 62	63 @ 70

REMARKS.

The market for the quarter has been dull and prices have steadily weakened. The general curtailment of production among the worsted mills resulted in a limited call for the various grades of combing and these wools show the greater decline. The woolen mills were more fully employed and the shorter wools were relatively in better demand, particularly the finer grades. The bulk of the wools pulled in April and May are of combing length, and, consequently, the production was far in excess of the sales. June lambs super, on account of color — being white and clear — sold quickly; but the prices obtained, as compared with those of a year ago, show a drop of fully ten cents a pound.

W. A. BLANCHARD.

## FOREIGN WOOLS. (MAUGER &amp; AVERY.)

	1910.			1909.
	April.	May.	June.	June.
<b>Australian Combing:</b>				
Choice . . . . .	41 @ 43	41 @ 42	40 @ 42	43 @ 46
Good . . . . .	40 @ 41	39 @ 40	39 @ 40	40 @ 43
Average . . . . .	38 @ 40	38 @ 39	37 @ 38	39 @ 41
<b>Australian Clothing:</b>				
Choice . . . . .	42 @ 43	42 @ 43	41 @ 43	42 @ 43
Good . . . . .	40 @ 41	39 @ 40	38 @ 39	40 @ 41
Average . . . . .	38 @ 39	37 @ 38	37 @ 38	38 @ 40
<b>Sydney and Queensland:</b>				
Good Clothing . . . . .	40 @ 41	40 @ 41	40 @ 41	40 @ 41
Good Combing . . . . .	41 @ 42	40 @ 41	39 @ 40	41 @ 43
<b>Australian Crossbred:</b>				
Choice . . . . .	41 @ 42	40 @ 41	38 @ 40	40 @ 42
Average . . . . .	36 @ 37	35 @ 36	34 @ 36	35 @ 38
<b>Australian Lambs:</b>				
Choice . . . . .	42 @ 46	42 @ 46	42 @ 46	42 @ 46
Good . . . . .	40 @ 42	40 @ 42	40 @ 42	40 @ 43
Good Defective . . . . .	35 @ 38	34 @ 38	35 @ 38	35 @ 38
<b>Cape of Good Hope:</b>				
Choice . . . . .	35 @ 37	35 @ 37	35 @ 37	35 @ 37
Average . . . . .	32 @ 33	32 @ 33	32 @ 33	32 @ 33
<b>Montevideo:</b>				
Choice . . . . .	35 @ 37	35 @ 37	35 @ 37	34 @ 36
Average . . . . .	33 @ 34	32 @ 33	32 @ 33	31 @ 33
Crossbred, Choice . . . . .	37 @ 39	37 @ 39	37 @ 39	36 @ 37
<b>English Wools:</b>				
Sussex Fleece . . . . .	43 @ 44	43 @ 44	43 @ 44	40 @ 41
Shropshire Hogs . . . . .	42 @ 44	42 @ 43	42 @ 43	40 @ 41
Yorkshire Hogs . . . . .	37 @ 38	37 @ 38	37 @ 38	35 @ 37
Irish Selected Fleece . . . . .	35 @ 36	36 @ 37	36 @ 37	36 @ 37
<b>Carpet Wools:</b>				
Scotch Highland, White . . . . .	22 @ 23	21 @ 22	20 @ 21	19 @ 20
East India, 1st White Joria . . . . .	31 @ 32	31 @ 32	30 @ 32	27 @ 29
East India, White Kandahar . . . . .	25 @ 26	25 @ 26	25 @ 26	25 @ 26
Donskoi, Washed, White . . . . .	32 @ 34	32 @ 34	32 @ 34	28 @ 30
Aleppo, White . . . . .	32 @ 34	31 @ 33	31 @ 32	27 @ 29
China Ball, White . . . . .	21 @ 22	21 @ 22	20 @ 22	18 @ 20
“ “ No. 1, Open . . . . .	20 @ 21	20 @ 21	19 @ 21	17 @ 19
“ “ No. 2, Open . . . . .	13 @ 14	13 @ 14	13 @ 14	12 @ 14

## FOREIGN WOOLS.

BOSTON, August 23, 1910.

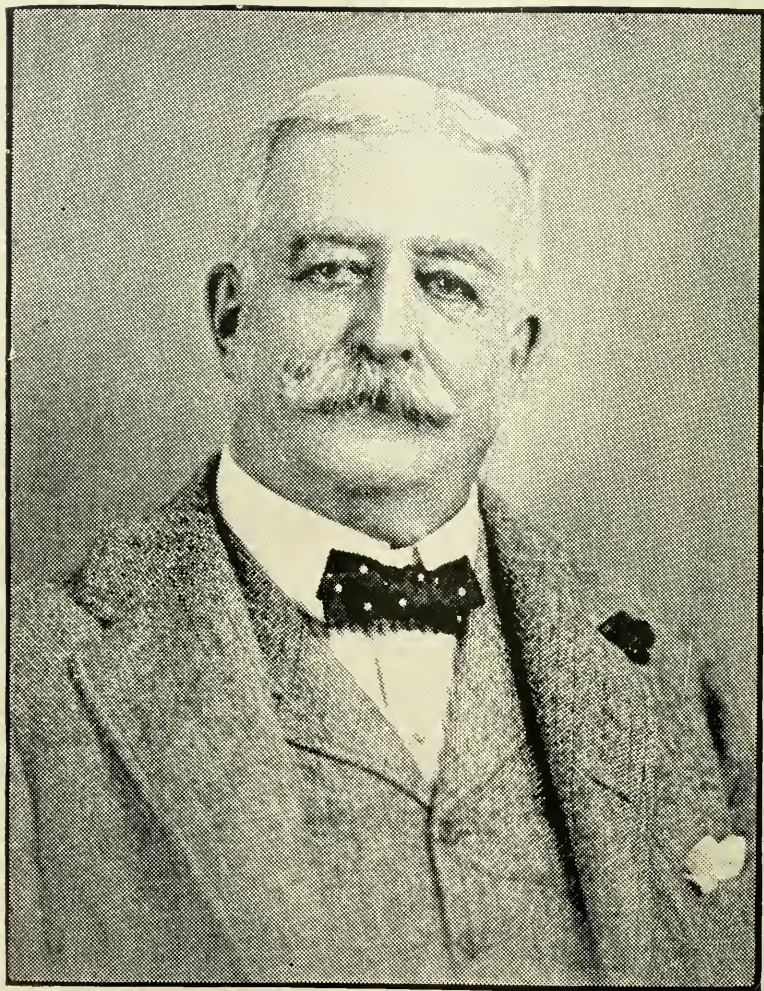
Foreign wools generally were not very active during the first quarter of the year, the lack of demand for worsted goods, affecting principally the manufacturers of men's wear worsteds, caused a falling off in the demand for all descriptions of combing wools and towards the close of the quarter shipments to London were made for American account to relieve the pressure on the market here. The larger part of the wools thus exported were of finer qualities, though there were some crossbreds among the shipments. Some of the manufacturers of women's wear goods had a successful season and were fairly steady buyers of crossbreds, which they secured at prices very favorable for them but unprofitable to the sellers.

English wools were not in demand and English pulled wools were entirely neglected.

India wools were in some request for woolen goods and values improved slightly towards end of the quarter.

MAUGER &amp; AVERY.





HENRY G. B. FISHER.



# BULLETIN

OF THE

## National Association of Wool Manufacturers

A QUARTERLY MAGAZINE

DEVOTED TO THE INTERESTS OF THE NATIONAL WOOL INDUSTRY.

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VOL. XL.]

BOSTON, DECEMBER, 1910.

[No. IV.

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### ANNUAL WOOL REVIEW

WITH ESTIMATE OF DOMESTIC WOOL CLIP OF 1910  
AND OTHER STATISTICAL TABLES.

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IN the pages which follow we present for the twenty-second consecutive year our annual estimate of the domestic wool product based upon the number of sheep fit for shearing April 1, 1910, together with numerous tables relating to sheep in various countries, the wool product, and the manufactures of wool and their importation. We have followed our accustomed lines in gathering information, and we desire to acknowledge our indebtedness for valuable assistance to sheepmen and others who have responded to our inquiries with helpful answers. We have no purpose to serve except to secure the most accurate information possible under prevailing conditions; and in this effort we have given due consideration to the views of the best informed wool growers, wool buyers, and dealers, and to the reports of officials in States where sheep are assessed for taxation. The result, it must be remembered, is an estimate and not an enumeration.

#### THE NUMBER OF SHEEP.

We place the number of sheep fit for shearing at 41,999,500, a decrease of 293,705 from 1909, when the total stood at 42,293,205. This decrease occurs in the estimated number of sheep in the far Western States, which in 1909 were credited



with 28,125,000 and now have 27,250,000, a falling off of 875,000, due largely to the excessive cold and storms of the winter of 1909-1910 in the Rocky Mountain region. The sheep in the Southern group of States are estimated now at 1,915,000, a loss of 25,000 from the 1,940,000 of 1909. There has been an increase, however, in the Eastern and Middle Western States, the number of sheep of shearing age in that group standing in our estimate at 12,834,500, a gain of 606,295 from the 12,228,205 of 1909.

The wool season of 1910 has unfortunately presented a marked contrast with the active and buoyant year preceding. It has been an unfavorable twelvemonth for wool growers and wool manufacturers alike. The year opened with probably 40,000,000 pounds, or 40 per cent, more wool, including that in bond, carried over than was the case at the beginning of 1909. The wool market early in January, 1910, was quiet, with prices fairly firm but with a marked hesitation among purchasers to contract for new clips. This first month of the new year ended with small sales and a generally waiting market, in which one redeeming feature was a fair demand from the carded woolen mills. The strength of the London market was also a factor in the situation. Through February the market continued to sag, with small sales and falling prices, while stocks of wool on hand accumulated and idle machinery increased. The first quarter of the year closed with grave disappointment. The heavy-weight season was a failure, and prices remained in favor of the buyer. Both territory and fleece wools were in fair supply, and with a new clip in sight the situation was very discouraging.

Through the spring months the depression continued. Domestic wool was cheap, not only by comparison with the earlier season, but by comparison with the world's markets. There were somewhat larger sales in April because many holders wearied of carrying their wool, and there began to be talk of exporting American wool to Europe. In sympathy with the situation in this country American purchases in Sydney and Victoria showed a great falling off, and the best Australian wools for American use declined in August a full 10 per cent, if not more. In the middle of September the central feature of the market was the sale of moderate quantities of the 1910 domestic clip for shipment to England. The prices paid for export in September averaged about 52 and 53 cents a scoured pound on territory

wool based on buyers' shrinkage, and English operators were said to be prepared to buy 5,000,000 pounds of territory wool if holders would accept a 50-cent clean price. As the effort does not seem to have been followed up, it is to be presumed that the wools were unsatisfactory at the price named. More recently considerable quantities of wool have been bought here for speculation on foreign account, to be held for a rise in price on this side.

These exports of wool represent abnormal conditions. They were the direct result of persistent political agitation for a re-opening and reduction of the tariff, particularly of Schedule K. The year 1910 was one of distinct prosperity in European manufacturing and of a brisk wool and woolen trade all over the world, except in the United States or in those markets directly affected by the American situation. The disturbance was local; the depression being due to influences peculiar to the United States. The low prices in the domestic wool market and the idle machinery in American mills simply reflected the demand of hostile interests that the new Aldrich-Payne tariff should be overthrown almost as soon as it had been enacted, before there had been any fair chance for an actual, honest test of the law in operation. The increased demand for carded wool goods has not grown to the extent that was hoped for. Still, the manufacturers of these goods have experienced a better year than of late, and some of this class of mills have been employed to their full capacity.

The total loss inflicted upon American wool growers and wool manufacturers by headlong political agitation for an immediate re-revision of the new tariff law has been estimated to be as high as \$100,000,000 in its direct and indirect consequences.

The tendency from fine to coarser wools still continues to affect the wool grower, although not perhaps to so great an extent as in some former years.

The conditions of the sheep and wool industry in this country are reflected in some degree in both Australia and Argentine, with this difference: that while in the United States there are no new ranges to be taken up, as the sheepman is driven out of his former haunts by a closer settling of the country, by forest reserves and other restrictions, in those other lands there is still ample territory on the outskirts of civilization to which he may drive his flocks and pursue his calling in the old-time way, with

little immediate fear of settlers or government interference. There are still opportunities for growth in Africa and perhaps in Asia, as the interiors of these continents become better known, but aside from the four regions named the sheep industry seems doomed to gradual but greater restriction in the range, which will eventually compel modifications of breed to suit changed conditions. The day of the large flocks of sheep of pure merino blood seems to be passing away. Nevertheless, it is on the foundation of the merino that the most valuable wools of the world are built, and continual recourse to the original type is imperative if the mills of the world are to be supplied with the fine, medium and crossbred wools from which our high-grade woolens and worsteds are made.

This disastrous year was ushered in, in the Rocky Mountain region, by one of the severest winters ever experienced by sheepmen. There were heavy and frequent snows, fierce winds and biting cold. Thousands of sheep perished on the ranges, and for those that survived the requisite feed was scarce and costly. The terrible winter was followed by a summer's drought, and altogether, with natural and political conditions warring against them, the wool growers have good cause to remember 1910 as a year of sinister experience.

The dry summer following on the disastrous winter caused great numbers of sheep to be set aside for slaughter all over the West. The effect of these adverse conditions is certain to be marked in the reduced domestic wool clip of next year.

Many are the gloomy forecasts that have been received from our correspondents: one of these in Wyoming writes: "The sheepman, with the drought and the agitation by the Federal government of the tariff question, has seen his best days." Another in Iowa: "If the manufacturer wants American wool he will have to keep the price above the 20-cent mark. If it goes below that we decrease our flocks and raise hogs and cattle. We cannot raise sheep on high-priced land, with high-priced labor, and compete with Australia and South America." In most of the far Western States the forest reserve system and the lessening of the open ranges are grievances of which growers complain, and in Montana there is comment on the fact that the area for pasturage is being reduced by the taking of land for the production of winter wheat. On the other hand the growers of States like Arkansas and Missouri, with a less arduous climate, have

found cause for encouragement. One Missouri correspondent writes of his State as "by nature one of the best sheep States in the Union, and she can easily support twice the number of sheep that she now has." In Tennessee there was comment that the farmers were steadily improving their sheep, and grading up into the best Virginia and Kentucky wools. In Ohio wool growing has a formidable competitor in the dairy business, which many former owners of sheep declare that they have found more profitable.

The present high price of swine, the abundance of corn for feed, and the rapidity with which pigs can be fattened and prepared for slaughter have in many instances caused flock masters to neglect their sheep for the more profitable business of fattening pigs for market. This is another of the disabilities to which the sheep industry is subjected. Hogs and cattle require less care than sheep, at recent prices are more remunerative, and many sheep masters have sold their holdings and gone out of the business, to its permanent disadvantage, for, as one of our correspondents writes, when a man transfers from sheep to cattle he never goes back to his former calling.

The high prices of foodstuffs and other prime necessities of life have unquestionably had their effect upon the woolen trade and hence upon the wool market for the year closing. Food must be purchased daily to sustain life. If, because of a high cost, this food absorbs a larger and larger proportion of the personal income, less money remains for the satisfying of other needs. For a while the buying of woolen garments can be postponed and a last year's suit or dress or cloak or overcoat can be brushed up and made to last a season longer. These household economies have inevitably played a part in the weakening of the wool market throughout the year 1910. But sooner or later new clothing must be bought, and this particular depressing effect, from the very nature of things, cannot indefinitely continue.

#### A GREAT WOOL STOREHOUSE.

Located on Summer, D, and E Streets, Boston, on a lot of land 480 feet long and 275 feet wide, where twenty-five years ago there was six feet of water at low tide, the largest building in America devoted exclusively to the storage of wool now stands completed. It is a solid pile of masonry, concrete and steel construction, not only impressive in size, its façade on Summer



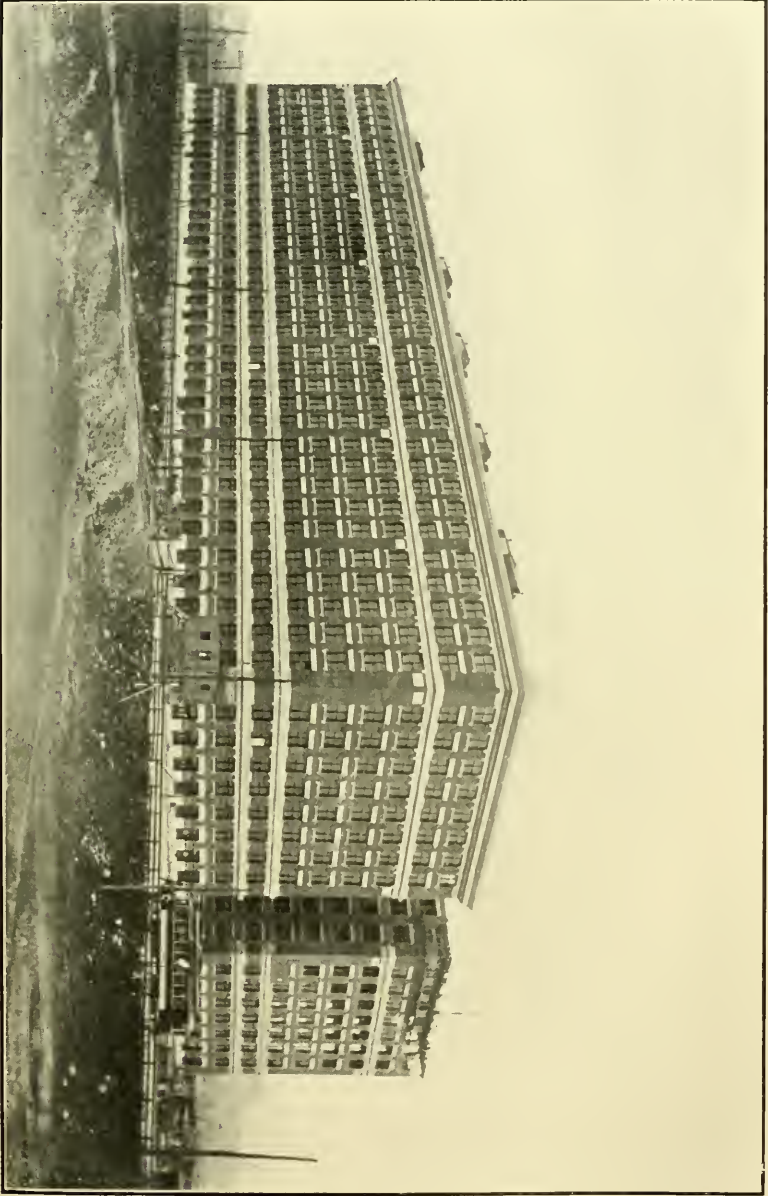
Street extending the full length of the 480-foot lot, but dignified and attractive in outline and detail, the solidity and massiveness of the structure impressing one much as does the gigantic ocean liner steaming down stream in full view of this leviathan of land architecture.

The length of the warehouse is 480 feet; its width is 125 feet; its height is 124 feet; it has nine stories and a deep, capacious basement. In the rear is a street 43 feet wide, beyond which have been erected two sections of a building of similar design and construction which are to be leased for general storage purposes. There remains land enough for the erection of the additional five sections to make a second structure of the same length as the wool warehouse, but 107 feet in width instead of 125 feet. Under the street between the two buildings have been installed the gas engines, electric generators, switchboard, and necessary machinery for generating and delivering power for all the lighting, heating, and mechanical requirements of the two storage houses.

The main building, Boston's great wool warehouse, is a structure of which the wool industry should be proud and is a worthy symbol of a great New England business. It is the outcome of the acumen, enterprise, and public spirit which have long made Boston the foremost American wool market. It was constructed at a cost of nearly \$1,500,000 by the Fargo Real Estate Trust, of which Jeremiah Williams, William M. Wood, and Joseph Koshland are trustees, and will be occupied by the business houses represented by these gentlemen, Jeremiah Williams and Company, the American Woolen Company, and J. Koshland and Company. This building has a storage capacity of 250,000 bales, or 40 per cent of the American clip. It will house nearly as much wool as is sold in the New York, Philadelphia, and Chicago markets combined. Divided into seven sections of equal size, with solid masonry partitions of fireproof construction, each section having its own automatic push-button elevators, with safety doors, and its wool-weighing scales having a capacity of from eight ounces to 2,800 pounds, with a whip hoist connected with each floor, with no wood used anywhere in construction and but rarely in finish, no safer, more convenient, more accessible or better lighted structure for housing the valuable fleeces of American flocks could be planned or built.

This great building is proof that Boston's leading wool mer-





THE NEW BOSTON WOOL WAREHOUSE.



chants and manufacturers are not thinking of the past and its triumphs, but that their faces are set toward the future and that with the same courage, ability, and enterprise which won for Boston so high a rank as America's foremost wool market that, as in the America's race, there is no second, they are leading in the development and expansion of the American wool industry and are determined to maintain the supremacy of Boston as a great wool market.

#### CHICAGO WOOL WAREHOUSE.

The new National Wool Warehouse & Storage Company at Chicago, like the wool houses in the East, has had rather a dull year because of adverse conditions among the mills. Nevertheless, Mr. J. E. Cosgriff, of Rawlins, Wyo., the sagacious and energetic president of the company, states that he and his colleagues are reasonably well satisfied with the progress of their enterprise. "This movement," declares Mr. Cosgriff, "is not designed to hold wool for future prices. It is our intention to sell on the market at all times. Out of five hundred of the leading sheepmen whom we have as stockholders, I think that only six have made suggestions as to how to handle the wool. This is indicative of the confidence which they have in the proposition as a whole. We should like ultimately to bring about something like the London sales, but we recognize frankly that this cannot be done until we have learned to put up our wool in better shape—until we have taught the Western growers to prepare their wools so that a brand will mean something, as it does in Australia.

"We are giving much attention to improvement in the handling of wool. We call our stockholders into meetings at convenient places; answer their questions, and explain to them what they should do to better the condition of the wool put on the market. We are taking this up systematically, and believe that we are going to bring about an important improvement. We are paving the way to a better understanding, to more intelligent effort among sheepmen, and are working for the production of better wool.

"The next thing is that we are absolutely opposed to contracting for wool on the sheep's back. This has tended to demoralize the sheepmen more than any other feature. We are opposed to the present excessive expense involved in gather-

ing this wool in the West. An army of men goes out in the spring either to buy the wool or to solicit it. When the wool is on the cars ready to come here, all that expense has not benefited the wool one cent. The dealers tell me that it costs on the average to gather the wool one-half a cent a pound."

Mr. Cosgriff's confidence that his work and that of his associates is improving the quality of domestic wools has strong confirmation in a letter which Mr. Cosgriff has received from one of the most experienced and capable manufacturers in the United States, Mr. Charles H. Harding, of the Erben-Harding Company of Philadelphia.

"After the earnest appeals made to the growers in the addresses it has been my good fortune to deliver in the past on the subject of growing fleece and classifying clips," writes Mr. Harding, "it is now time to congratulate you and them on the improvement manifest in this year's clip. A manufacturer can approach many clips now with a degree of confidence and absence of suspicion that are certainly worth something to him. . . . If now they can find some way to get rid of the insoluble paint that must be clipped from the fleece, the buyer from the mill will find most of the drawbacks gone that so long have caused him to discount the looks of Western wool."

In this matter of paint, also, Mr. Cosgriff and his associates of the National Wool Warehouse & Storage Company are endeavoring to work an improvement. "We are trying to get a paint," says Mr. Cosgriff, "that is soluble in naphtha and yet will stand the inclemency of the weather. It is difficult to bring that about. We have asked the United States government to help us. The growers themselves have started in. It requires some intelligent experiments. I am urging the growers to use a smaller brand. Most growers did not know that the paint injured the wool."

Still another task for Mr. Cosgriff and his friends has been to get rid of unfit twine used for the tying up of wools. Some twines made of paper have been secured which are sufficiently strong, are of light weight and do not injure the wool. These paper twines are non-fibrous, and if particles fall off in the wool they are easily dissolved. Mr. Cosgriff believes that at least 30,000,000 pounds of wool were tied in the West this year with the new twine, to the very great advantage of both growers and manufacturers.

TABLE 1. WOOL PRODUCT OF THE UNITED STATES. — 1910

States and Territories.	Quality.	No. of Sheep of Shear- ing Age, April 1, 1910.	Average Weight of Pleece, 1910.	Wool Washed and Unwashed, 1910.	Per cent of Shrinkage, 1910.	Wool Scoured, 1910.	Average Value per Scoured Pound, Oct. 1.					Total Value, 1910.	States and Territories.
							1906.	1907.	1908.	1909.	1910.		
			Pounds.	Pounds.		Pounds.	Cents.	Cents.	Cents.	Cents.	Cents.		
Maine	Medium	210,000	6.	1,260,000	40	756,000	58	55	55	45		\$340,200	Maine.
New Hampshire	25% fine, 75% medium	70,000	6.	420,000	50	210,000	57	55	44	57		102,900	New Hampshire.
Vermont	20% " 80% "	180,000	6.5	1,170,000	51	573,000	56	55	45	57		280,917	Vermont.
Massachusetts	Medium	35,000	6.2	217,000	42	125,860	57	56	44	56		56,637	Massachusetts.
Rhode Island	"	7,800	5.3	39,750	42	20,955	57	56	44	56		10,375	Rhode Island.
Connecticut	"	35,000	6.25	218,750	42	106,675	58	57	58	47		47,959	Connecticut.
New York	33% fine, 67% medium	825,000	6.	4,950,000	48	2,574,000	59	58	45	55		1,237,000	New York.
New Jersey	Medium	50,000	5.5	275,000	47	145,750	59	58	45	55		67,045	New Jersey.
Pennsylvania	60% fine, 40% medium	1,050,000	6.	6,300,000	48	3,276,000	62	61	48	59		1,801,800	Pennsylvania.
Delaware	Medium	7,000	5.5	38,500	48	21,175	55	55	46	56		9,741	Delaware.
Maryland	"	180,000	5.2	676,000	43	385,320	60	57	44	55		173,394	Maryland.
West Virginia	75% fine, 25% medium	600,000	3.75	3,450,000	49	1,785,500	60	57	49	64		1,002,915	West Virginia.
Kentucky	Medium	800,000	4.75	3,800,000	38	3,356,000	58	58	45	55		4,555,550	Kentucky.
Ohio	60% fine, 40% medium	2,600,000	6.5	16,900,000	51	8,281,000	62	61	48	58		4,150,550	Ohio.
Michigan	25% " 75% "	1,700,000	6.75	11,475,000	50	5,737,500	60	59	46	58		2,811,575	Michigan.
Indiana	15% " 85% "	900,000	6.5	5,850,000	45	3,217,500	57	56	44	57		1,480,050	Indiana.
Illinois	25% " 75% "	700,000	7.	4,900,000	50	2,450,000	55	54	42	56		1,127,000	Illinois.
Wisconsin	20% " 80% "	900,000	6.75	6,075,000	46	3,346,000	60	58	40	56		1,352,295	Wisconsin.
Minnesota	20% " 80% "	375,000	6.8	2,550,000	47	1,346,000	53	52	42	55		556,592	Minnesota.
Iowa	30% " 70% "	800,000	6.75	5,400,000	48	2,808,000	56	55	44	58		1,291,680	Iowa.
Missouri	15% " 85% "	860,000	7.	6,020,000	47	3,190,600	56	55	44	58		1,435,770	Missouri.
		12,834,500	6.38	81,950,000	48.1	42,542,885						\$20,874,283	
Virginia	Medium	385,000	4.5	1,642,500	37	1,034,775	59	57	45	57		\$486,344	Virginia.
North Carolina	"	204,000	3.75	765,000	42	443,700	55	54	40	56		186,354	North Carolina.
South Carolina	"	50,000	3.75	187,500	42	108,750	55	54	39	56		44,888	South Carolina.
Georgia	"	275,000	4.	1,100,000	40	406,000	55	54	40	57		166,050	Georgia.
Florida	"	115,000	3.25	373,750	40	224,250	54	54	40	56		91,943	Florida.
Alabama	"	160,000	3.5	560,000	40	336,000	54	53	40	56		137,700	Alabama.
Mississippi	"	150,000	4.	600,000	42	348,000	54	53	40	56		142,680	Mississippi.
Louisiana	"	155,000	3.7	573,500	41	338,365	55	53	40	57		138,730	Louisiana.
Arkansas	"	200,000	4.	800,000	40	480,000	54	52	38	55		192,000	Arkansas.
Tennessee	"	291,000	4.25	1,236,750	40	742,050	58	57	45	57		319,082	Tennessee.
		1,915,000	3.87	7,414,000	39.9	4,460,890						\$1,905,531	
Kansas	Fine, fine med., and medium	175,000	7.5	1,312,500	64	472,500	65	65	50	66		\$245,700	Kansas.
Nebraska	" " "	250,000	6.5	1,625,000	60	650,000	65	65	50	66		338,000	Nebraska.
South Dakota	" " "	625,000	6.5	4,062,500	60	1,625,000	67	67	50	65		877,500	South Dakota.
North Dakota	" " "	270,000	6.5	1,755,000	60	702,000	67	67	50	65		379,080	North Dakota.
Montana	" " "	4,800,000	7.	33,600,000	64	12,096,000	68	67	51	68		6,773,760	Montana.
Wyoming	" " "	4,650,000	7.75	36,037,500	68	11,532,000	69	67	49	67		6,342,600	Wyoming.
Idaho	" " "	2,600,000	7.3	18,980,000	65	6,643,000	66	66	51	67		3,454,360	Idaho.
Washington	" " "	4,500,000	3.	4,050,000	69	1,215,000	66	65	50	67		677,970	Washington.
Oregon	" " "	1,750,000	8.25	14,337,500	68	4,620,000	68	68	52	70		3,448,600	Oregon.
California	33% fall, 67% spring	1,900,000	7.	13,300,000	66	4,522,000	67	64	41	64		2,080,120	California.
Nevada	Fine, fine med., and medium	850,000	7.	5,950,000	68	1,904,000	68	68	51	70		1,028,160	Nevada.
Utah	" " "	2,100,000	6.75	14,175,000	68	4,819,500	67	65	46	65		2,606,140	Utah.
Colorado	" " "	1,400,000	6.5	9,100,000	65	3,185,000	65	63	42	68		1,490,950	Colorado.
Arizona	" " "	825,000	6.	4,950,000	65	1,702,500	65	65	45	67		818,325	Arizona.
New Mexico	" " "	3,200,000	6.	19,200,000	65	6,720,000	63	60	45	65		3,427,200	New Mexico.
Texas	25% fall, 75% spring	1,325,000	6.75	8,943,750	67	2,951,438	67	66	53	64		1,623,291	Texas.
Oklahoma and Indian Territory	Fine, fine med., and medium	80,000	6.5	520,000	67	171,600	63	61	44	67		82,368	Oklahoma.
		27,250,000	7.05	191,998,750	65.8	65,602,038						\$34,700,024	
Totals		41,999,500	6.7	281,362,750	60	112,605,813	63.8	62.3	46.6	63.6	51	\$57,479,838	Totals.
Pulled Wool.				40,000,000	27	29,200,000	54.3	50.2	41.6	58	51.75	15,010,000	Pulled Wool.
Total Product, 1910						321,362,750						\$72,489,838	Total Product, 1910.
											61.12 22.53*		

\* Average value, unscored





The National Wool Warehouse & Storage Company has representatives now in the Philadelphia and Boston markets, and is plainly overcoming much of the prejudice which once existed against the enterprise. President Cosgriff is an alert, broad-minded man, eminently qualified to bring about a better understanding between the West and the East, the two branches of the common industry.

#### WOOL PRODUCT.

The total clip, excluding pulled wool, according to our estimate, is 281,362,750 pounds, a decrease of nearly 6,000,000 pounds as compared with last year. The scoured equivalent is 112,605,813 pounds, a decrease of less than 1,000,000 pounds from last year, due largely to the lighter shrinkage of the wools in the present season.

The detailed statement of number of sheep, weight of fleece, with percentage of shrinkage of wool product and the equivalent in scoured wool, the average value per pound for five years and the total value of this year's clip will be found in Table I., opposite.

In this table for convenience the States have been arranged, as in years past, in three groups, the first embracing all those north of the Ohio River and east of the western boundary of Missouri, including Kentucky, Maryland, and West Virginia, in which the fleece wools, fine and medium, are of comparatively light weight and shrinkage; the second comprising the southern States, where only medium wools are grown, except Texas, and the third comprising all the States west of the Missouri line, including Texas, New Mexico, and Arizona, where the great bulk of the fine, fine medium, and medium wools of heavy weight and shrinkage are produced.

In the first group are found 12,834,500 sheep, or 35 per cent of the total flock, producing 81,950,000 pounds of wool in the grease, or 29 per cent of the whole product of 281,362,750 pounds, exclusive of pulled wool. In the third section 27,250,000 sheep, or 65 per cent of the total flock, produced 191,998,750 pounds of wool, or 68 per cent of the total clip.

In scoured condition the wools of the first group, owing to their lighter shrinkage, yielded 42,542,885 pounds, or nearly 38 per cent of the total, while the third group produced 65,602,038 pounds, or 58 per cent of the whole.

When the value is considered it is found that the wools of the first group brought \$20,874,283, or 36 per cent of the total value of \$57,479,838, and the third group's clip was valued at \$34,700,024, or 60 per cent of the total. The production of the second group, although including ten States, is comparatively small, not much attention being paid to the sheep industry, although large areas of this section of the country are admirably adapted to wool growing and sheep raising. The number of sheep and the quantity of wool grown are about the same as for a number of years past, being for this year 1,915,000 sheep, producing 7,414,000 pounds of wool in the grease, which, shrinking about 40 per cent, yields 4,460,890 pounds of clean wool, valued at \$1,905,531.

## WEIGHT AND SHRINKAGE.

For a series of years the average weight and shrinkage for the whole country has been as follows:

	Average Weight.	Average Shrinkage.
	<i>Pounds.</i>	<i>Per cent.</i>
1901.....	6.33	60.6
1902.....	6.50	60.0
1903.....	6.25	60.8
1904.....	6.50	61.6
1905.....	6.56	61.3
1906.....	6.66	61.8
1907.....	6.60	60.6
1908.....	6.70	60.5
1909.....	6.80	60.9
1910.....	6.70	60.0

The table shows a general tendency towards heavier fleeces, with but little variation in the average shrinkage from year to year; this year the shrinkage is 60 per cent, and, except in 1902 when it was the same, it is the lightest in the ten years shown in the table. The winter of 1910 like that of 1902 was unusually severe, which, with a consequent lack of forage, accounts for the light average weight and smaller shrinkage.

## PULLED WOOL.

Although the quantity of pulled wool produced is always to some extent a matter of conjecture, our reports are substantiated

by the systematic returns of the large packers who pull fully two-thirds of the total amount. Our estimate of the quantity of grease wool has been reduced, for this year, from 41,000,000 pounds in 1909 to 40,000,000 pounds; but this reduction is offset by a diminished shrinkage, not now exceeding an average of 27 per cent, resulting from the fact that brushing of sheep-pelts has become quite general among pullers. This makes the estimate of scoured wool 29,200,000 pounds, a slight increase over the previous year. Reports from slaughtering centers show increased receipts of sheep and lambs since June, consequent upon adverse foddering conditions in sections west of the Rockies; but, as the yield of wool from a summer pelt is only a half to three-quarters of a pound, the aggregate increase of wool derived from this source is comparatively small and by no means sufficient to compensate for earlier conditions.

A general division of the 29,200,000 pounds of scoured pulled wool is estimated as follows:

Fine and fine medium .....	16,000,000
Medium and coarse.....	13,200,000

These we subdivide into the market-grades with the average values for the year ending September 30, 1910.

	Pounds.	Value per pound, cents.	Total value.
Extra and fine A .....	4,000,000	62	\$2,480,000
A super .....	8,000,000	52	4,160,000
B super .....	6,000,000	45	2,700,000
C and low super.....	1,200,000	30	360,000
Fine combing .....	6,000,000	58	3,480,000
Combing .....	3,500,000	48	1,680,000
Shearlings .....	500,000	30	150,000
	29,200,000	Average 51½	\$15,010,000

The total production of the country for 1910 including pulled wool is, therefore, 321,362,750 pounds, or 6,747,999 pounds less than the estimated product of last year and is equal to 141,805,813 pounds of scoured wool.

## WOOL PRODUCTION MAP.

On the opposite page is presented an outline map of the United States in which is shown the estimated wool clip of each State and territory for this year, which will be valuable for reference, as it shows at a glance the relative importance of each in this branch of industry.

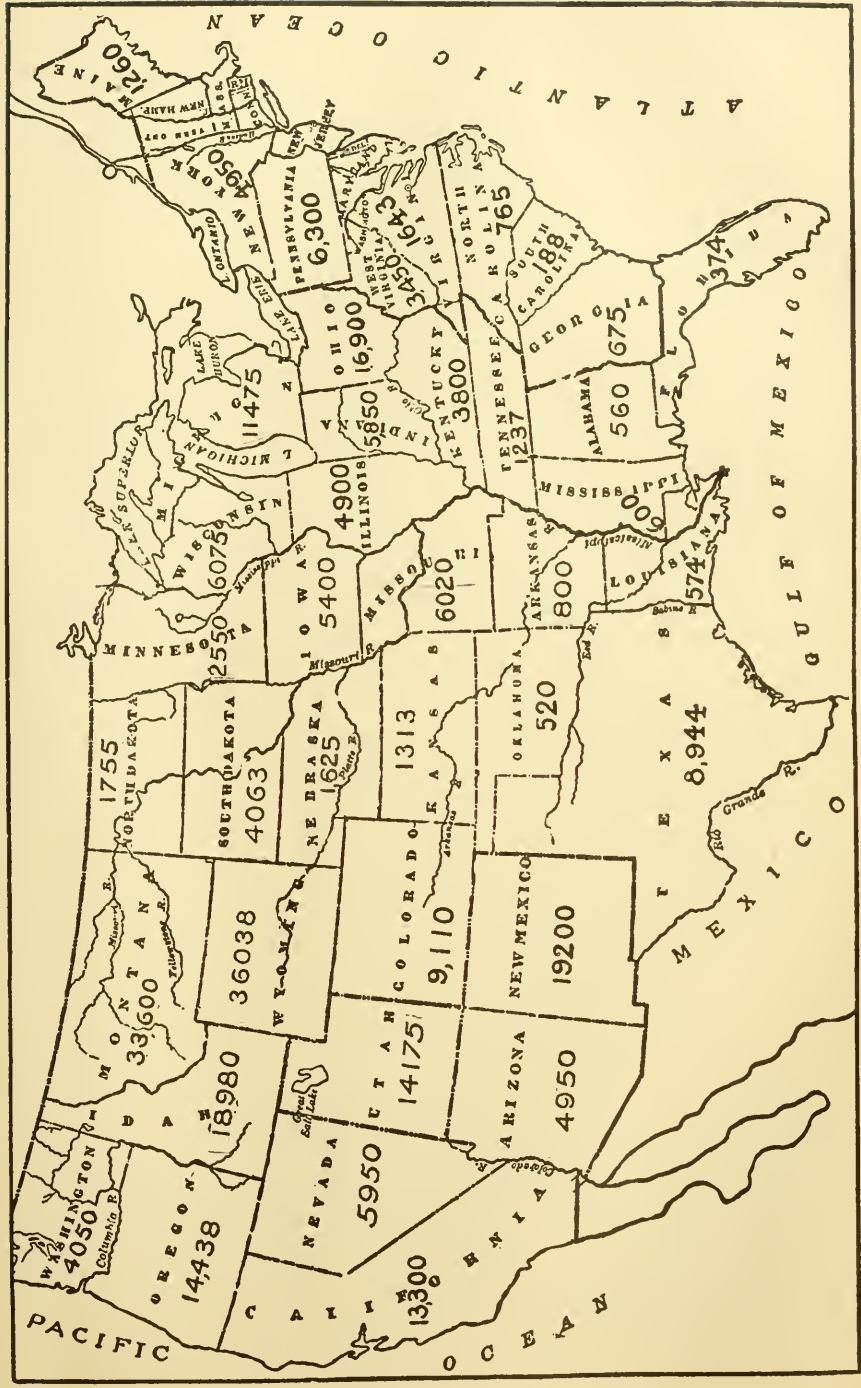
The next table (No. II.) presents a statement of the production of wool for a period of twenty-five years with the annual increase or decrease, and the one following it (No. III.) gives the production for the same period reduced to the scoured equivalent, as has been shown in our yearly estimates.

TABLE II.—FLEECE AND PULLED WOOL, WASHED AND IN THE GREASE.

	Product.	Decrease.	Increase.
1888..... pounds	301,876,121	293,829	.....
1889..... "	295,779,479	6,096,642	.....
1890..... "	309,474,856	.....	13,699,877
1891..... "	307,401,507	2,073,349	.....
1892..... "	333,018,405	.....	25,606,898
1893..... "	348,538,138	.....	15,519,733
1894..... "	325,210,712	23,327,426	.....
1895..... "	294,296,726	30,913,986	.....
1896..... "	272,474,708	21,822,018	.....
1897..... "	259,153,251	13,321,457	.....
1898..... "	266,720,684	.....	7,567,438
1899..... "	272,191,330	.....	5,470,646
1900..... "	288,636,621	.....	16,445,291
1901..... "	302,502,382	.....	13,865,707
1902..... "	316,341,032	.....	13,838,650
1903..... "	287,450,000	28,891,032	.....
1904..... "	291,783,032	.....	4,333,032
1905..... "	295,488,438	.....	3,705,406
1906..... "	298,715,130	.....	3,426,692
1907..... "	298,294,750	.....	948,176
1908..... "	311,138,321	.....	12,833,571
1909..... "	328,110,749	.....	16,972,428
1910..... "	321,362,750	6,747,999	.....



WOOL PRODUCTION IN THE UNITED STATES IN POUNDS IN 1910.  
(000 omitted, thus: Washington, 4,275 = 4,275,000.)



New Hampshire.....	420	Connecticut .....	184	Total clip in 1910..	281,362,750 pounds.
Vermont .....	1,170	New Jersey .....	275	Pulled wool.....	40,000,000 "
Massachusetts .....	217	Delaware .....	39		
Rhode Island .....	40	Maryland .....	676	Total .....	321,362,750 "

TABLE III. — SCOURED WOOL, FLEECE AND PULLED.

	Product.	Decrease.	Increase.
1888..... <i>pounds</i>	136,591,955	3,964,730	.....
1889..... "	134,795,350	1,796,605	.....
1890..... "	139,628,220	.....	4,832,870
1891..... "	139,326,703	301,517	.....
1892..... "	145,300,318	.....	5,973,615
1893..... "	151,103,776	.....	5,803,458
1894..... "	140,292,268	10,811,508	.....
1895..... "	125,718,690	14,573,578	.....
1896..... "	115,284,579	10,434,111	.....
1897..... "	111,365,987	3,918,592	.....
1898..... "	111,661,581	.....	295,594
1899..... "	113,958,468	.....	2,296,887
1900..... "	118,223,120	.....	4,264,652
1901..... "	126,814,690	.....	8,591,570
1902..... "	137,912,085	.....	11,097,395
1903..... "	124,366,405	13,545,680	.....
1904..... "	123,935,147	431,258	.....
1905..... "	126,527,121	.....	2,591,974
1906..... "	129,410,942	.....	2,883,821
1907..... "	130,359,118	.....	948,176
1908..... "	135,360,648	.....	5,001,530
1909..... "	142,223,785	.....	6,863,137
1910..... "	141,805,813	417,972	.....

## VALUE OF THE WOOL PRODUCT.

The total value of the wool product for the year, estimated on the scoured price in Boston, October 1, was \$72,489,838 for 141,805,813 pounds of wool. Last year 142,223,785 pounds were valued at \$88,829,746. The average value per pound of the fleece wool was 51 cents and 51.75 cents for pulled wool.

	Fleece and pulled. Scoured.	Total value.	Value per pound.	
			Fleece.	Pulled.
	<i>Pounds.</i>		<i>Cents.</i>	<i>Cents.</i>
1901.....	126,814,690	\$51,164,709	41.1	36.7
1902.....	137,912,085	60,679,127	45.2	39.7
1903.....	124,366,405	58,775,373	48.8	43.4
1904.....	123,935,147	64,948,959	54.1	46.7
1905.....	126,527,121	80,415,514	65.4	57.4
1906.....	129,410,942	79,721,383	63.8	54.3
1907.....	130,359,118	78,263,165	62.3	50.2
1908.....	135,360,648	61,707,516	46.6	41.6
1909.....	142,223,785	88,829,746	63.6	58
1910.....	141,805,813	72,489,838	51	51.75

## AVAILABLE SUPPLIES, 1905-1910.

Table IV. contains an estimate of the available wool supplies for the year 1910-11, that is, pending the next clip, exclusive of imports after October 1 and supplies in manufacturers' hands. The corresponding figures for a series of years are given for comparison. It is based on the Boston Commercial Bulletin's record of supplies in dealers' hands on January 1 last, the Department of Commerce and Labor's figures of imports, and the figures of the preceding tables.

TABLE IV. — AVAILABLE SUPPLIES.

	1905.	1906.	1907.	1908.	1909.	1910.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Wool clip, fleece and pulled . .	295,488,438	298,915,130	298,294,750	311,138,321	328,110,749	321,362,750
Domestic wool on hand January 1 . . . .	41,873,811	72,461,443	94,402,046	84,556,560	50,556,100	54,820,507
Foreign wool on hand January 1 . . . .	11,562,000	24,414,000	15,169,000	15,188,500	14,015,000	14,481,000
In bond January 1 . . . .	41,181,360	56,788,129	40,928,806	52,955,081	37,853,497	76,503,604
Foreign wool imported, January 1 to July 1 . . . .	164,730,358	119,597,637	126,600,884	64,275,513	188,125,373	139,922,432
Total . . .	554,835,967	572,176,339	575,395,486	528,113,975	618,660,719	607,090,293
Imports of wool, July 1 to Oct. 1,	44,388,908	35,331,909	33,750,260	33,205,899	62,814,168	17,807,601
Total to Oct. 1	599,224,875	607,508,248	609,145,746	561,319,874	681,474,887	624,897,894

The gross imports for the three months ending September 30, 1910, were as follows:

1910.	Class I.	Class II.	Class III.	Total.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July . . . . .	851,550	507,540	3,278,549	4,637,639
August . . . . .	809,228	1,495,214	4,255,904	6,560,346
September . . . . .	594,914	1,283,453	4,731,249	6,609,616
Total . . . . .	2,255,692	3,286,207	12,265,702	17,807,601

For the corresponding three months of the previous year the imports were :

Class I.	Class II.	Class III.	Total.
<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
18,377,557	11,418,364	33,018,247	62,814,168

## THE ANNUAL WOOL SUPPLY.

Table V. shows the quantity of wool retained for consumption in the United States from 1890 to date. As the wool clip of the year reaches the market during the governmental fiscal year, the clip of any year is added to the imports of the fiscal year beginning July 1, so that the total supply for a series of years is accurately indicated by this combination, however it may differ from the available supplies in any one year of the series.

TABLE V.—WOOL PRODUCED, IMPORTED, EXPORTED, AND RETAINED FOR CONSUMPTION.

Fiscal Year.	Total Imports.	Exports, Domestic and Foreign.	NET IMPORTS.		Production	Retained for Consumption.	FINE WOOL.	
			Classes I. and II.	Class III.			Retained for Consumption.	Per cent of Foreign.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	
1890-91..	129,303,648	2,930,045	36,783,501	89,882,024	309,474,856	435,848,459	345,966,435	10.63
1891-92..	148,670,652	3,210,019	53,350,167	92,312,922	307,101,507	452,562,140	360,249,218	14.81
1892-93..	172,433,838	4,310,495	46,189,082	122,026,119	333,018,405	501,141,748	379,115,629	12.18
1893-94..	55,152,585	6,497,654	7,167,380	42,007,798	348,538,138	397,193,069	355,185,271	2.02
1894-95..	206,081,890	6,622,190	98,388,318	105,402,507	325,210,712	524,722,428	419,319,921	23.46
1895-96..	230,911,473	12,972,217	126,966,355	97,918,882	294,296,726	512,235,982	414,317,100	30.64
1896-97..	350,852,026	8,700,598	235,282,735	112,141,457	272,474,708	614,626,136	502,485,908	46.84
1897-98..	132,795,302	2,625,971	47,480,033	82,810,437	259,153,251	399,322,582	306,512,145	15.50
1898-99..	76,736,209	14,095,335	3,349,870	60,947,423	266,720,684	329,361,558	268,387,135	1.25
1899-1900	155,918,455	7,912,557	44,680,424	105,525,783	272,191,830	420,197,228	314,671,445	14.20
1900-01..	103,583,505	3,790,067	32,865,844	67,127,159	288,636,621	388,430,059	321,502,465	10.10
1901-02..	166,576,966	3,227,941	69,315,286	93,842,199	302,502,382	465,851,407	371,694,390	18.65
1902-03..	177,137,796	3,511,914	54,747,533	119,397,268	316,341,032	489,966,914	370,569,646	14.63
1903-04..	173,742,834	3,182,803	55,999,545	114,880,236	287,450,000	458,010,031	345,129,795	16.22
1904-05..	249,135,746	2,561,648	134,407,321	112,292,726	291,783,032	538,357,130	426,066,402	31.54
1905-06..	201,688,668	5,642,859	98,236,137	97,902,153	295,488,438	491,534,247	393,632,094	24.99
1906-07..	203,847,545	3,446,748	91,726,655	108,888,982	298,715,130	499,115,927	390,226,945	23.50
1907-08..	125,980,524	5,626,463	57,846,442	62,690,077	298,294,750	418,648,811	346,141,192	16.71
1908-09..	266,409,304	3,523,975	164,867,536	99,046,169	311,138,321	574,023,650	476,005,877	34.60
1909-10..	263,939,584	3,926,992	139,986,526	120,073,586	328,110,749	558,123,341	468,049,755	29.90
1910-11..	.....	.....	.....	.....	321,362,750	.....	.....	.....

The proportion of fine wools decreased from 34.6 per cent in 1909 to 29.90 in the year under review, a reduction attributable to the stagnant condition of the home wool market. The total quantity of fine wools retained for consumption, both foreign and domestic, amounted to 468,049,755 pounds, only 7,956,122 pounds less than in the preceding year, which, with the exception of the year previous to the enactment of the Dingley law, was the highest on record. This year the net imports of Classes I and II are smaller by 24,881,010 pounds than last year, but are still far above the average. The net imports of Class III are 21,027,417 pounds in excess of those of last year, amounting to 120,073,586 pounds, and except for the year 1902-3, when they amounted to about 2,000,000 pounds more, are the largest for the period shown in the table. The exports and reëxports of all wools, as a rule always small, vary but slightly from last year.

The following table, computed from Table V., shows the total supplies for five-year periods, beginning in 1888, the ten years 1893-1902, the five-year period, 1903-1907, and the years 1908, 1909, and 1910:

TABLE VI. — WOOL SUPPLY, 1888-1910 — DOMESTIC PRODUCTION, AND IMPORTS LESS EXPORTS.

Fiscal years ending June 30.	All wools.	Fine wools.
	<i>Pounds.</i>	<i>Pounds.</i>
1888-1892. Five years, total.....	2,122,407,842	1,686,818,840
Annual average.....	424,481,568	337,363,768
1893-1897. Five years, total.....	2,549,920,592	2,070,423,829
Annual average.....	509,984,118	414,084,766
1898-1902. Five years, total.....	1,988,771,621	1,582,374,537
Annual average.....	397,755,324	316,474,907
1888-1897. Ten years, total.....	4,672,328,434	3,757,242,669
Annual average.....	467,232,843	375,724,267
1893-1902. Ten years, total.....	4,538,692,213	3,652,798,366
Annual average.....	453,869,221	365,279,837
1903-1907. Five years, total.....	2,476,984,249	1,925,618,882
Annual average, five years.....	495,396,850	385,123,776
1908.....	418,648,811	346,141,192
1909.....	574,023,651	476,005,877
1910.....	588,123,341	468,049,755

#### SLAUGHTER AND MOVEMENT OF SHEEP.

The total number of sheep killed yearly at four western centers, Chicago, Kansas City, St. Louis, and Omaha, and total



yearly receipts of sheep at eastern seaboard markets, Boston, New York, Philadelphia and Baltimore, are reported in the "Cincinnati Price Current's Statistical Annual," as follows :

TABLE VII.—SEABOARD SHEEP RECEIPTS AND SLAUGHTER AT PRINCIPAL WESTERN POINTS.

Calendar Year.	Western killings.	Seaboard receipts.	Total.
1887.....	1,173,000	3,432,000	4,605,000
1888.....	1,275,000	3,453,000	4,728,000
1889.....	1,476,000	3,305,000	4,781,000
1890.....	1,622,000	3,274,000	4,896,000
1891.....	1,879,000	3,375,000	5,254,000
1892.....	2,112,000	3,394,000	5,506,000
1893.....	3,278,000	3,330,000	6,608,000
1894.....	3,565,000	4,079,000	7,644,000
1895.....	3,995,000	4,265,000	8,260,000
1896.....	4,299,000	3,611,000	7,910,000
1897.....	4,654,000	3,141,000	7,795,000
1898.....	4,647,000	2,988,000	7,635,000
1899.....	5,019,000	2,945,000	7,964,000
1900.....	4,798,000	3,093,000	7,891,000
1901.....	5,276,000	3,400,000	8,676,000
1902.....	5,832,000	3,443,000	9,275,000
1903.....	5,827,000	3,314,000	9,141,000
1904.....	5,465,000	3,128,000	8,593,000
1905.....	5,879,000	2,425,000	8,304,000
1906.....	6,117,000	2,606,000	8,723,000
1907.....	5,701,000	2,956,431	8,657,431
1908.....	5,824,000	3,364,349	9,188,349
1909.....	6,578,000	3,346,147	9,924,147

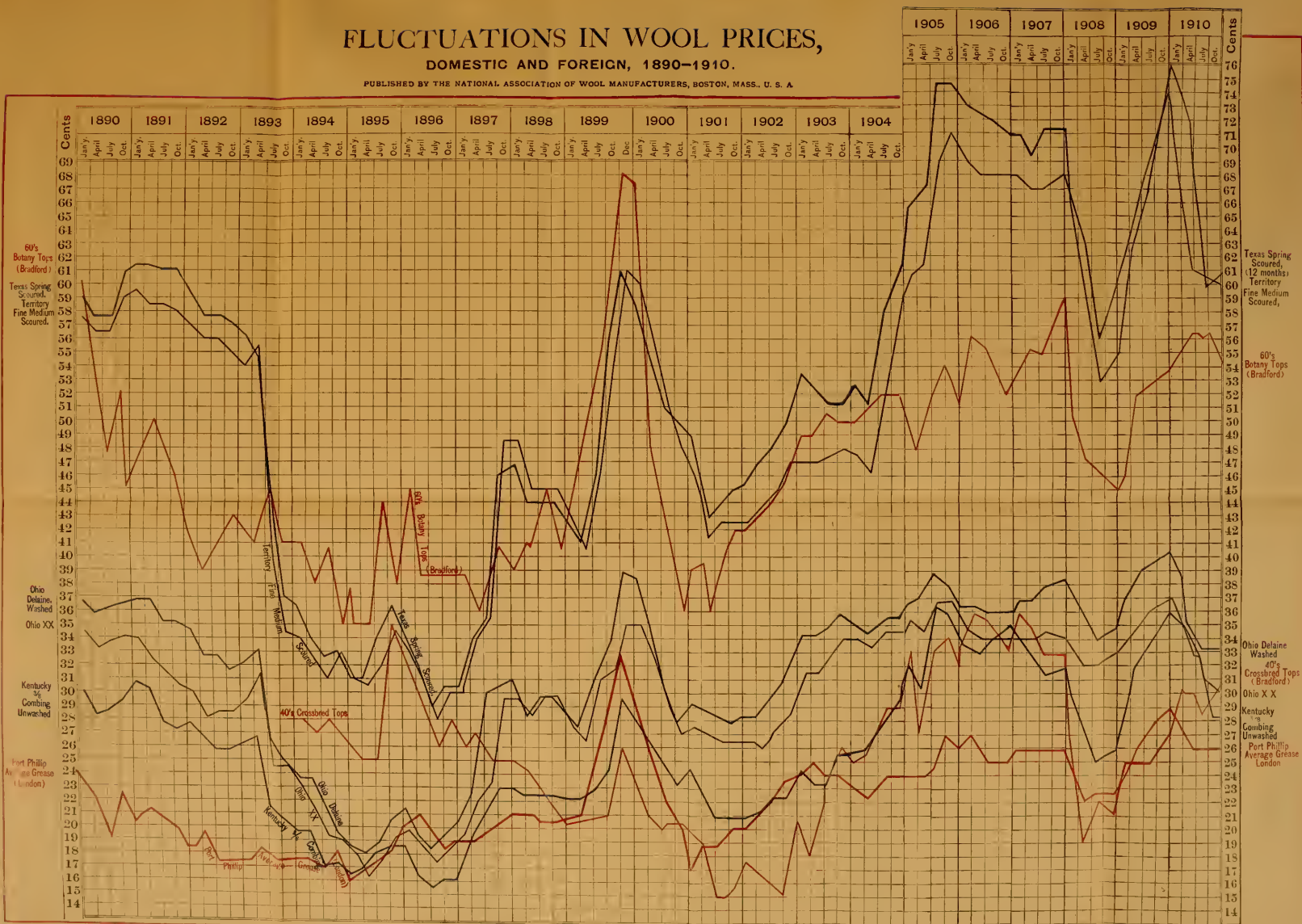
The seaboard receipts were practically the same as in the previous year and the western killings 13 per cent in excess of those of last year, the total being 6,578,000 as compared with 5,824,000 of the year before and 780,800 more than the average for the five preceding years.

In the past twenty-one years the western killings at the four centers and the seaboard receipts have increased from 4,605,000 to 9,924,147, a total more than double that of 1887.

The total slaughter in the whole country, however, must be at least 50 per cent greater than the total given in the table, in which no account is made of the killings in small establishments and local slaughter-houses or by farmers for their own use. It will be of interest to compare this table with the table on page 339 giving the slaughter of sheep in Australasia, from

# FLUCTUATIONS IN WOOL PRICES, DOMESTIC AND FOREIGN, 1890-1910.

PUBLISHED BY THE NATIONAL ASSOCIATION OF WOOL MANUFACTURERS, BOSTON, MASS., U. S. A.



London price of Port Phillip wool, Helmuth Schwartz & Co. Bradford prices Merino and Crossbred Tops, Boston prices of American wools.



which it appears that the demand for mutton in that country is much greater than it is here, for with a population of only 5,439,322 the demand for food required the slaughter of 11,583,667 head to supply the home market.

#### THE COURSE OF PRICES.

The year has been a most unusual one in the wool trade.

The passage of the Aldrich-Payne bill in August, 1909, gave promise of needed relief from tariff agitation, and manufacturers and dealers looked forward to a prosperous year to follow.

But their hopes were doomed to disappointment, for dissatisfaction with the law at once became manifest, and agitation for a revision, especially of Schedule K (wool and woolens), was renewed, resulting in a stagnation of business so that not over two-thirds of our wool manufacturing machinery has been employed, and the prices of the raw material, especially for fine wools, have fallen much below the prices for the last six or seven years; in fact, such low values have not been known since 1902. The loss to the wool growers resulting from these lower values is measured in part by the difference in value of the wool product, \$88,829,746, as shown in our report of last year, and the value as shown in Table I. in this year's report, \$72,489,838, a direct loss of \$16,339,808 for which no compensation can be found.

These low prices have led to considerable inquiry from abroad into the quality of our wools and to some small experimental shipments. A good deal of wool bought in Australia for our factories has been stopped in London and sold there, conditions on the other side being much better than here.

Table VIII. shows the Boston prices in October for fifteen years. The first year of the period 1896 was under the Wilson-Gorman tariff, when wool was free of duty. The difference in prices between that year and the following year shows the immediate effect of the wool duty of the Dingley law upon the value of American-grown wool. The changes and the course of the market are shown in the table and graphically indicated by our Chart of Fluctuations in Wool Prices, opposite this page, in which Ohio XX. and Port Phillip average grease represent Boston and London prices for practically similar grades of wool. The Boston prices of Kentucky three-eighths combing, unwashed; Ohio Delaine, washed; territory fine medium and Texas spring, twelve months, scoured, and also the course of prices for 60's Botany and 40's crossbred tops in Bradford are shown.



TABLE VIII.—COMPARATIVE PRICES OF DOMESTIC WOOL IN BOSTON,  
OCTOBER, 1896–1910.

	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
<b>OHIO, PENNSYLVANIA, AND WEST VIRGINIA.</b>															
<i>(Washed.)</i>															
XX and above . . .	19	29½	29½	31½	28½	26½	28½	34	35	36½	34	34	33	36	30
Medium . . . . .	19½	30½	30	34½	28½	26	29	32	36	41½	40	40	34	40	34
Fine Delaine . . . .	19½	30½	29½	34½	28½	28	31½	36	36	37½	36	38½	35	40	34
<i>(Unwashed.)</i>															
Fine . . . . .	13½	21	19½	22½	18½	19½	21½	23½	24	27	26	27	23	28	22
Medium . . . . .	15½	23	22½	25	23½	20	23	25	30	34½	33	33	26	36	28
Fine Delaine . . . .	14	21	21½	24½	21½	21	24	26	27	30	28	31	28	33	26
<b>MICHIGAN, WISCONSIN, NEW YORK, ETC.</b>															
<i>(Washed.)</i>															
Fine . . . . .	15½	24	22½	25½	22½	20½	24	27½	27½	31*	30*	30*	28*	31*	28*
Medium . . . . .	18½	29	27½	32	27½	24½	27	31	33	40	39	39	33	38	33
Fine Delaine . . . .	18½	27	27½	31½	25½	24½	29	34	34	36	34	37	34	38	32
<i>(Unwashed.)</i>															
Fine . . . . .	11½	18½	17½	20	16½	17	19	21½	22	25	24	25½	22	26	20
Medium . . . . .	15	22	22	22½	22½	19½	21½	24	29	33	32	32	25	34	27
Fine Delaine . . . .	13	19½	19½	22½	18½	19	22	23½	25	28	26	29	26	32	25
<b>KENTUCKY AND INDIANA.</b>															
<i>(Unwashed.)</i>															
Medium . . . . .	16	23	22½	22½	24½	21	22½	24½	30	35	33	31	25	35	28
<b>MISSOURI, IOWA, AND ILLINOIS.</b>															
<i>(Unwashed.)</i>															
Medium . . . . .	15	22	21½	22	22½	19½	21½	23½	29	34	32	30	24	32	26
<b>TEXAS.</b>															
<i>(Scoured Basis.)</i>															
Spring, fine, 12 months	31	46	44	49	50	44	52½	52½	62	75	70	71	55	75	60
Fall, fine . . . . .	27	43	41½	44	41	37	45	42½	52	62	58	58	48	60	50
<b>CALIFORNIA.</b>															
<i>(Scoured Basis.)</i>															
Spring, Northern, free, 12 months . .	31	46	44	49	49	43½	50	52	62	74	70	68	50	70	55
Fall, free . . . . .	27	42½	41	44	41	38½	43	42½	53	62	60	58	40	53	45
<b>TERRITORY WOOL, INCLUDING MONTANA, WYOMING, UTAH, IDAHO, OREGON, ETC.</b>															
<i>(Scoured Basis.)</i>															
Staple fine . . . . .	33	50	47½	55	51	46	55	55	65	76	71	73	60	78	65
“ medium . . . . .	30	48	45	50	48	44	50	51	60	70	66	68	52	70	57
Clothing, fine . . . .	31	48	45	50	48	43	48	50	60	72	68	65	53	70	58
“ medium . . . . .	27½	45	44	48	47½	40	45	46	55	68	63	60	45	65	50

\* Nominal.

## BOSTON RECEIPTS AND SHIPMENTS OF WOOL.

Table IX. shows the annual receipts of domestic and foreign wool in Boston by months for the years 1904 to 1910, inclusive, and Table X. shows the shipments in pounds from Boston, by months over the several railroads and by sea for the year. Only the direction and quantity of the shipments can be determined by this table, which contains a certain amount of duplication, for it reports shipments of wool from Boston to be scoured, some



of which is reshipped to Boston, to be again sent away to factories where it is used.

The receipts of domestic wool in Boston up to November 1 were 649,252 bales, containing 166,219,932 pounds of wool. During the same period the receipts of foreign wool amounted to 183,719 bales, equal to 73,669,814 pounds. In the corresponding period of ten months in the previous year the domestic receipts were 840,045 bales, 230,069,796 pounds, and 359,045 bales, 137,909,219 pounds of foreign.

The falling off in the receipts of domestic wool is accounted for in part by the reduced clip and in part, as is indicated by our advices, by the holding back of wool by producers in hope of securing better prices. The condition of the wool manufacturing business sufficiently accounts for the reduction in the foreign imports.

#### STATISTICS OF IMPORTS OF WOOL AND WOOLENS.

The Hon. O. P. Austin, chief of the Bureau of Statistics of the Department of Commerce and Labor, has kindly furnished us with numerous tables showing various important facts with respect to imports of wool and wool manufactures for the fiscal year ending June 30, 1910, which appear in Tables XI. to XV., inclusive, and the table beginning, on page 456, showing the imports of wool and manufactures of wool entered for consumption for the fiscal years ending June 30, 1909 and 1910.

#### IMPORTS OF WOOL BY PORTS AND CLASSES.

Tables XI., XII. and XIII. show the gross imports of wool both by classes and ports, as brought into the three principal wool importing centers, but as stated in the foot-notes to the tables there is a moderate quantity imported each year into minor ports. The tables show a very considerable decrease in the quantity of Class I wool imported as compared with 1909, but an increase in Classes II and III which offsets this loss and brings the total imports up nearly to the record of the preceding year. As will be seen, Boston retains her supremacy in the importation of Class I and II wools, while New York leads in the third class imports.

TABLE IX. — RECEIPTS OF WOOL IN BOSTON IN BALES AND BAGS, 1904-1910.  
(*Boston Chamber of Commerce, James A. McKibben, Secretary.*)

	1904.		1905.		1906.		1907.		1908.		1909.		1910.	
	Domestic.	Foreign.	Domestic.	Foreign.	Domestic.	Foreign.	Domestic.	Foreign.	Domestic.	Foreign.	Domestic.	Foreign.	Domestic.	Foreign.
January .....	44,952	11,038	24,258	40,380	32,869	14,584	38,242	19,893	25,633	12,076	40,983	21,670	36,169	27,323
February .....	35,576	17,089	12,748	39,613	22,641	33,263	30,997	40,123	23,244	19,664	37,530	53,418	24,724	50,811
March .....	38,741	18,535	22,617	35,857	29,760	31,352	28,276	38,971	24,658	8,579	34,274	51,137	28,581	37,849
April .....	33,614	23,990	25,572	30,896	27,536	33,424	29,192	24,271	22,791	15,671	43,946	55,005	22,775	25,085
May .....	48,311	18,527	60,208	28,542	35,810	16,439	37,714	28,059	33,005	14,141	78,955	40,871	38,748	9,207
June .....	96,222	26,877	91,091	45,976	64,274	11,250	64,613	21,938	69,295	13,073	114,834	39,455	48,074	7,954
July .....	153,710	14,147	113,777	14,317	113,506	5,113	125,048	7,038	148,740	8,617	228,732	13,303	118,726	3,123
August .....	124,239	27,350	113,901	17,619	113,219	13,842	154,637	18,558	156,747	17,662	142,493	33,974	188,599	10,106
September .....	38,577	15,778	34,126	10,886	60,088	8,086	55,385	15,472	62,565	7,957	70,482	26,975	80,745	6,885
October .....	34,459	20,713	25,658	9,487	35,352	12,854	42,468	9,636	46,106	15,570	47,832	23,237	62,111	5,366
November .....	35,402	22,005	26,060	12,004	27,796	14,160	42,172	6,630	53,918	10,669	38,060	18,305		
December .....	28,650	26,259	30,169	11,217	32,041	14,991	20,244	4,180	56,489	23,480	43,882	16,753		
Total .....	712,453	242,108	580,185	296,794	594,892	209,358	666,988	234,167	723,191	167,149	921,973	394,103	649,252	183,719
Weight in pounds ...	199,638,757	112,058,782	167,338,763	153,033,538	166,671,466	106,781,301	185,879,807	96,212,199	190,470,231	76,097,317	247,463,739	149,487,123	166,219,932	73,669,814

TABLE X. — SHIPMENTS OF WOOL FROM BOSTON BY MONTHS.  
(*Boston Chamber of Commerce, James A. McKibben, Secretary.*)

RAILROADS.	1909.		1910.									
	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.
	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.
Boston & Albany R.R.	3,053,310	3,758,295	2,999,365	2,272,342	2,580,935	3,075,560	2,232,307	2,673,825	2,510,858	4,068,100	3,324,110	2,907,122
Boston & Albany Grand Junction	1,772,654	1,594,610	1,048,780	1,214,870	1,324,016	1,104,260	467,410	1,098,810	943,220	775,057	744,120	549,920
New York, New Haven & Hartford R.R.	4,359,679	4,393,810	4,130,673	3,656,900	4,355,430	3,240,900	2,950,420	2,782,250	2,736,060	4,245,750	3,074,040	2,939,700
Boston & Maine R.R.												
Eastern & Western Division.	9,801,261	5,493,000	6,729,445	5,593,611	4,728,027	3,757,060	4,076,070	3,854,000	3,841,120	4,523,500	4,195,300	4,825,830
Southern Division.	1,181,680	1,372,685	2,231,830	1,969,651	2,088,170	2,259,750	1,079,370	1,458,650	792,350	2,037,020	1,744,370	1,818,970
Fitchburg Div.,	785,735	821,386	838,060	281,796	476,536	374,076	367,797	312,990	817,750	886,220	630,564	1,124,772
By sea . . . . .	2,395,834	1,631,099	2,219,451	1,128,451	1,596,237	2,270,372	1,581,302	2,866,349	909,541	1,834,244	1,582,014	1,681,975
Total . . . . .	23,360,133	19,064,885	20,197,604	16,117,621	17,149,351	16,081,978	12,753,676	15,046,874	12,550,999	18,369,891	15,294,518	15,848,289
Total after January 1 . . . . .	244,745,982	263,810,867	20,197,604	36,315,225	53,464,576	69,546,554	82,300,230	97,347,104	109,898,103	128,267,994	143,562,512	159,410,801
Total after January 1, preceding year . . . . .	176,296,982	198,523,505	22,437,608	42,098,469	63,858,667	85,333,120	111,345,159	127,549,646	149,428,474	173,308,949	196,830,738	221,385,829

TABLE XI. — WOOL IMPORTED INTO BOSTON, NEW YORK, AND PHILADELPHIA.  
BY PORTS AND CLASSES.

GROSS IMPORTS YEAR ENDING JUNE 30.	BOSTON.			NEW YORK.			PHILADELPHIA.			TOTAL.
	Class 1.	Class 2.	Class 3.	Class 1.	Class 2.	Class 3.	Class 1.	Class 2.	Class 3.	
	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	
1896.....	78,398,112	9,539,881	30,325,673	28,939,693	543,352	52,764,614	8,301,279	2,070,608	15,055,110	225,938,322
1897.....	137,221,457	23,156,843	33,421,729	48,428,014	2,371,604	62,522,561	9,884,925	1,811,398	13,676,511	332,495,042
1898.....	36,205,712	2,672,113	22,823,137	5,865,916	458,732	50,071,999	2,306,013	17,505	9,661,885	130,083,012
1899.....	8,335,942	1,554,556	12,456,404	2,911,683	155,121	43,251,114	1,517,560	344,368	4,971,888	75,498,636
1900.....	30,192,843	5,343,455	29,333,226	3,561,996	1,275,008	61,922,600	3,281,732	3,266,758	14,486,204	152,663,872
1901.....	22,416,924	3,396,580	19,963,032	5,602,497	210,782	39,112,400	2,072,551	572,304	8,171,451	101,518,521
1902.....	51,479,822	2,820,800	21,778,976	7,308,817	920,301	52,417,988	5,468,922	266,807	19,780,677	162,243,110
1903.....	30,601,779	8,877,714	35,294,573	5,323,738	1,693,694	54,119,001	4,443,990	1,991,395	29,648,574	171,994,458
1904.....	37,821,884	8,980,496	37,984,908	3,070,482	1,389,643	45,582,335	4,509,591	362,262	27,699,439	170,401,040
1905.....	86,741,441	19,018,797	37,070,260	9,908,856	2,908,801	44,082,025	11,146,872	1,569,526	30,346,375	242,792,953
1906.....	64,801,760	8,336,094	22,420,950	8,555,810	1,657,970	49,278,261	10,227,347	1,772,888	26,788,974	193,840,034
1907.....	61,116,729	4,204,964	25,713,122	8,817,037	1,159,185	61,357,911	8,744,454	854,390	22,226,390	194,194,182
1908.....	34,002,148	7,247,799	13,023,020	3,397,855	522,524	36,778,123	6,220,038	459,275	16,647,519	118,298,301
1909.....	114,512,293	11,591,627	24,757,185	11,100,437	383,908	52,853,241	12,531,238	1,832,418	24,005,573	253,587,920
1910.....	79,232,943	17,022,966	27,476,785	14,399,419	1,574,625	66,098,923	13,081,388	4,635,818	26,762,386	250,285,253

NOTE. — These figures represent about 95 per cent of the total quantity of wool imported into all the ports of the United States.

TABLE XII. — WOOL IMPORTED INTO BOSTON, NEW YORK, AND PHILADELPHIA.  
BY PRINCIPAL COUNTRIES OF PRODUCTION.

YEAR ENDING JUNE 30.	Russia.	Turkey.	United Kingdom.	Argentina.	Uruguay.	Chinese Empire.	British E. Indies.	British Oceania.	All other Countries.	Total.
	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.
1896.....	13,150,509	17,987,753	14,229,068	32,281,341	9,048,350	26,084,232	9,897,531	72,995,090	30,264,448	225,938,322
1897.....	19,706,449	20,239,717	27,759,419	64,969,556	15,004,257	21,461,478	10,989,980	109,912,851	42,451,335	332,495,042
1898.....	16,999,224	9,282,762	12,434,332	16,734,279	1,309,974	20,369,294	6,445,063	31,877,252	14,630,832	130,083,012
1899.....	13,373,350	5,697,377	9,156,624	7,957,657	149,573	14,276,124	6,949,491	7,249,740	10,688,700	75,498,636
1900.....	18,869,252	9,577,147	20,393,063	20,064,279	1,072,307	30,998,289	9,397,020	23,121,394	19,171,121	152,463,872
1901.....	13,720,814	8,355,941	16,919,793	14,358,218	783,075	9,181,105	4,146,698	22,570,030	11,482,847	101,518,521
1902.....	16,322,231	12,215,316	21,737,509	45,287,370	533,634	18,843,396	6,813,401	26,559,531	13,930,722	162,243,110
1903.....	19,455,392	15,440,933	31,778,842	23,265,309	541,384	26,032,976	11,850,446	25,238,498	18,390,678	171,994,458
1904.....	23,403,797	17,742,473	26,807,042	28,168,060	112,208	24,912,491	10,088,556	25,792,098	13,374,315	170,401,040
1905.....	23,790,451	23,454,937	25,213,450	47,695,567	7,740,309	30,023,157	12,202,135	56,212,733	16,460,214	242,792,953
1906.....	21,180,755	16,032,199	21,615,963	42,167,927	5,807,190	30,233,702	6,011,319	39,548,551	11,242,388	193,840,054
1907.....	21,231,378	15,710,735	14,863,620	23,195,208	5,856,611	39,762,115	8,697,581	52,538,582	12,338,352	194,194,182
1908.....	12,913,964	10,686,993	15,747,766	16,221,285	1,604,221	21,717,431	4,936,421	27,032,576	7,438,644	118,298,301
1909.....	7,966,392	10,050,199	31,125,711	58,379,834	5,868,232	35,634,909	12,952,758	79,420,778	12,189,107	253,587,920
1910.....	13,263,175	13,521,623	37,097,134	31,082,184	8,789,785	46,599,637	16,603,135	68,199,625	15,128,955	250,285,253

NOTE. — These figures represent about 95 per cent of the total quantity of wool imported into all ports of the United States.



TABLE XIII.—WOOL IMPORTED INTO BOSTON, NEW YORK, AND PHILADELPHIA, FISCAL YEAR, ENDING JUNE 30, 1910, BY COUNTRIES OF PRODUCTION, IMMEDIATE SHIPMENT, AND CLASSES.

COUNTRIES OF PRODUCTION.	Countries of immediate shipment.	CLASSIFICATION.			TOTAL.
		Class 1.	Class 2.	Class 3.	
		<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Austria-Hungary . . . . .	{ Austria-Hungary . . . . .	8,217	696,009		769,860
	{ England . . . . .		24,280		
	{ Germany . . . . .		41,354		
Belgium . . . . .	{ Belgium . . . . .	268,741	31,653		300,394
Bulgaria . . . . .	{ Austria-Hungary . . . . .		51,027		51,027
Denmark . . . . .	{ Denmark . . . . .	699	131,140		131,839
	{ Belgium . . . . .	198			
France . . . . .	{ England . . . . .		107,582		2,809,248
	{ France . . . . .	5,809	2,691,652		
	{ Turkey in Asia . . . . .		4,007		
Germany . . . . .	{ Germany . . . . .	225,270	4,176	1,695,166	1,924,612
Greece . . . . .	{ Greece . . . . .		5,292		5,292
	{ Denmark . . . . .		28,116	1,040,132	
Greenland, Iceland, etc. . . . .	{ England . . . . .		51,007		1,939,875
	{ Germany . . . . .		105,905		
	{ Greenland, Iceland, etc. . . . .		683,166		
	{ Scotland . . . . .		31,549		
Italy . . . . .	{ France . . . . .		26,107		301,845
	{ Italy . . . . .	466	275,272		
Malta, Gozo, etc. . . . .	{ Malta, Gozo, etc. . . . .		16,763		16,763
Netherlands . . . . .	{ England . . . . .		17,023		509,451
	{ Germany . . . . .		6,645		
	{ Netherlands . . . . .		471,266		
Portugal . . . . .	{ England . . . . .		219,783		632,893
	{ France . . . . .		29,010		
	{ Portugal . . . . .		384,100		
Russia in Europe . . . . .	{ England . . . . .		29,299		8,525,873
	{ Russia in Europe . . . . .		8,496,574		
	{ Austria-Hungary . . . . .		80,042		
Servia . . . . .	{ Germany . . . . .		87,238		779,594
	{ Servia . . . . .		612,314		
	{ Belgium . . . . .		15,763		
Spain . . . . .	{ England . . . . .		24,959		1,236,561
	{ France . . . . .	16,113	216,758		
	{ Portugal . . . . .		13,206		
Switzerland . . . . .	{ Spain . . . . .	14,107	935,655		15,063
	{ Switzerland . . . . .		15,063		
	{ England . . . . .		38,965		
Turkey in Europe . . . . .	{ France . . . . .		15,833		2,882,467
	{ Turkey in Europe . . . . .	4,969	60,480	2,608,582	
	{ England . . . . .	584,225	18,308,098	1,699,736	
England . . . . .	{ Scotland . . . . .		234,255	93,293	20,919,607
	{ England . . . . .		72,321	1,535,593	
	{ Scotland . . . . .		933,704	12,010,331	
Scotland . . . . .	{ England . . . . .		531,564		1,625,578
	{ Ireland . . . . .		1,094,014		
	{ Canada . . . . .	72,245	83,056		
Canada . . . . .	{ Mexico . . . . .	59,293		9,735	155,301
Mexico . . . . .	{ West Indies—Dutch . . . . .	149		7,272	69,028
West Indies—Dutch . . . . .	{ Argentina . . . . .	23,586,578	3,898	3,674,644	7,421
Argentina . . . . .	{ Belgium . . . . .	633,161			31,082,184
	{ England . . . . .	2,930,726	33,901	38,673	
	{ Uruguay . . . . .	180,603			
Brazil . . . . .	{ Brazil . . . . .	9,590		75,308	89,113
	{ Uruguay . . . . .	4,215			
	{ Chile . . . . .	230,228		81,843	
Chile . . . . .	{ England . . . . .	163,949			551,046
	{ Germany . . . . .	75,026			
	{ Colombia . . . . .			868	
Colombia . . . . .	{ Ecuador . . . . .				868
Ecuador . . . . .	{ Falkland Islands . . . . .	200			200
Falkland Islands . . . . .	{ England . . . . .	472,203			472,203

TABLE XIII. — *Continued.*

COUNTRIES OF PRODUCTION.	Countries of immediate shipment.	CLASSIFICATION.			TOTAL.
		Class 1.	Class 2.	Class 3.	
		<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Peru . . . . .	England . . . . .	44,322			318,973
	Peru . . . . .	274,651			
	Belgium . . . . .	859,819			8,789,785
	England . . . . .	709,068			
Uruguay . . . . .	France . . . . .	182,037			
	Germany . . . . .			21,158	25,520
	Uruguay . . . . .	7,017,703			
Venezuela . . . . .	Venezuela . . . . .			25,520	25,520
	East Indies — British			54,65	46,599,637
	Chinese Empire . . . . .			39,509,820	
Chinese Empire . . . . .	England . . . . .			198,181	
	Germany . . . . .			117,845	
	Russia in Europe . . . . .			6,719,226	16,603,135
	East Indies — British		868,222	6,372,097	
East Indies — British	Chinese Empire . . . . .			11,136	33,535
	England . . . . .			9,351,680	
Japan . . . . .	England . . . . .			33,535	1,697,251
	England . . . . .			61,803	
Persia . . . . .	France . . . . .			52,671	4,737,302
	Persia . . . . .			1,563,933	
	Russia, Asiatic . . . . .			18,844	
	England . . . . .			215,344	
Russia — Asiatic . . . . .	Russia, Asiatic . . . . .			4,461,238	10,639,156
	Russia in Europe . . . . .			60,720	
	Austria-Hungary . . . . .			26,103	
	England . . . . .			530,344	
Turkey in Asia . . . . .	France . . . . .			539,666	32,495
	Scotland . . . . .			123,829	
	Turkey in Asia . . . . .	95,939	27,805	9,262,975	
	Turkey in Europe . . . . .			32,495	42,432
Asia, all other . . . . .	England . . . . .			11,988	
	All other Asia . . . . .			30,444	50,149,761
	Australia and Tas-				
	mania . . . . .	34,341,940			
Australia and Tas-	Belgium . . . . .	315,000			
mania . . . . .	England . . . . .	14,807,603			18,049,864
	France . . . . .	137,047			
	Germany . . . . .	508,138			
	Scotland . . . . .	40,033			
	Belgium . . . . .	28,306			232,110
	Canada . . . . .	60,337			
New Zealand . . . . .	England . . . . .	11,752,978	44,843	60,723	
	France . . . . .	21,395			5,964
	New Zealand . . . . .	6,081,282			
British Africa —	British Africa — South,	127,707	1,625	458	3,673
South . . . . .	England . . . . .	76,765	25,555		
Egypt . . . . .	Egypt . . . . .			5,964	5,964
Tripoli . . . . .	Tripoli . . . . .	3,673			3,673
Total . . . . .		106,713,750	23,233,409	120,338,094	250,285,253
Imported into . . . . .	BOSTON . . . . .	79,232,943	17,022,966	27,476,785	123,732,694
	NEW YORK . . . . .	14,399,419	1,574,625	66,098,923	82,072,967
	PHILADELPHIA . . . . .	13,081,388	4,635,818	26,762,386	44,479,592

NOTE. — These figures represent about 95 per cent of the total quantity of wool imported into all the ports of the United States.

## COUNTRIES OF PRODUCTION AND SHIPMENT.

Table XIII., above, shows the countries of production and immediate shipment of wools imported into the United States during the fiscal year ending June 30, 1910.

Of the total amount of Class I wools imported, 106,713,750 pounds, as against 138,143,968 pounds last year, 68,094,059 came from Australasia, a decrease of 11,322,717 pounds; 27,331,168 pounds from Argentina, a decrease of 23,270,252 pounds, and 8,768,627 pounds from Uruguay, an increase of 3,008,775 pounds.

The supplies of Class III wools were drawn chiefly from the following countries; the two preceding years are also given.

	1910.	1909.	1908.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Chinese Empire .....	46,599,637	35,626,304	21,716,986
Russia (Europe and Asia)...	13,263,175	7,964,480	12,910,119
United Kingdom.....	15,338,953	17,868,776	8,862,075
Turkey (Europe and Asia) ..	13,293,465	9,970,886	9,644,020
British East Indies .....	15,734,913	12,949,805	4,852,100
Argentina.....	3,713,317	6,672,175	1,909,787
Germany .....	1,695,166	2,454,277	.....
All other .....	10,699,468	8,109,296	7,553,575
	120,338,094	101,615,999	66,448,662

The following table gives the total gross imports into the United States for the five last fiscal years. The quantity imported into other than the principal ports can be ascertained by comparison with Tables XI. and XII.

TABLE XIV. — GROSS IMPORTS OF WOOL, FISCAL YEARS 1906-1910.

	Class I.	Class II.	Class III.	Total.
1906.....	86,810,307	15,204,254	99,674,107	201,688,668
1907.....	82,982,116	10,671,378	110,194,051	203,847,545
1908.....	45,798,313	13,332,540	66,849,681	125,980,524
1909.....	142,580,993	21,952,259	101,876,052	266,409,304
1910.....	111,604,330	31,614,235	120,721,019	263,939,584

#### IMPORTS OF WOOL MANUFACTURES.

Table XV., page 329, which gives the gross imports of manufactures of wool, shows a total foreign value of \$23,532,175, an increase of \$5,431,715 over 1909 and a total \$3,778,874 in excess of the average of the preceding six years.

The value cannot properly be used for comparison with the values of home manufactures, except by the addition of the customs duties paid. For such purposes the table of imports entered for consumption, page 456, should be used.

TABLE XV. — IMPORTS OF WOOL MANUFACTURES, 1904-1910. (FOREIGN VALUE.)

	1904.		1905.		1906.		1907.		1908.		1909.		1910.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
GROSS IMPORTS YEARS ENDING JUNE 30.														
Carpets (sq. yds.)	844,932	\$2,797,308	818,850	\$2,877,993	1,182,005	\$4,643,520	1,068,010	\$4,435,067	686,784	\$2,795,066	1,042,378	\$4,032,512	1,205,982	\$4,591,721
Clothing, etc., except shawls and knit goods	.....	1,309,995	.....	1,372,145	.....	1,626,279	.....	1,674,915	.....	1,620,270	.....	1,416,934	.....	1,813,542
Cloth, pounds	4,046,099	4,158,597	3,746,697	3,977,059	4,870,818	5,157,420	5,336,546	5,732,200	4,443,248	4,859,796	4,510,224	4,780,606	6,232,790	6,425,664
Dress goods (sq. yds.)	43,857,599	8,205,835	45,170,270	8,612,663	52,830,942	10,049,686	46,924,917	9,240,245	45,035,142	9,217,804	34,619,747	6,761,536	48,345,084	9,374,140
Knit fabrics	.....	515,747	.....	224,383	.....	265,133	.....	210,856	.....	35,635	.....	57,113	.....	17,258
Shoddy, flocks, etc., pounds	218,618	52,697	277,223	86,978	1,171,095	433,863	674,289	271,116	1,265,038	125,804	495,173	141,625	*	*
Shawls	.....	54,084	.....	65,253	.....	45,544	*	*	*	*	*	*	*	*
Yarns, pounds	159,739	112,925	183,211	129,736	198,601	156,629	195,797	154,668	192,826	151,035	284,393	233,704	*	*
All other	.....	526,000	.....	547,453	.....	702,609	.....	602,170	.....	582,568	.....	678,430	.....	1,309,850
	.....	17,733,788	.....	17,893,663	.....	23,080,683	.....	22,321,237	.....	19,387,978	.....	18,102,460	.....	23,632,175

\* Included in "All other."

IMPORTS OF WOOL AND MANUFACTURES OF WOOL ENTERED  
FOR CONSUMPTION.

The figures in the table on page 456, showing the imports of foreign wools and the manufactures of wool entered for consumption during the fiscal year, differ from those in the tables of gross imports and must not be confused with them. Only those quantities which go into consumption are included in the former, while in the tables of gross imports, all imports, those entered in bond as well as those withdrawn for consumption, are embraced.

The duty paid value of the imports of wool, including wool partially manufactured and not specially provided for, is \$68,-818,340, and of all manufactures of wool \$43,819,291, making a total duty paid value of \$112,637,631.

## LONDON SALES.

The sixth of the London sales of Colonial wool for 1909 began November 23 and closed December 2. The net amount available was 100,000 bales, of which 97,000 were sold, leaving 3,000 to be carried over into this year. The distribution was as follows:

Home consumption.....	47,000 bales.
Continent.....	48,500 "
America.....	1,500 "
Carried over.....	3,000 "

The following statement shows the supplies and deliveries of Colonial wool in the London market for the first five series of 1910, as compared with the same series of last year:

London Market.	1910.	1909.
Held over from December previous year.....	3,000 bls.	11,000 bls.
Net Imports for the first 5 series....	706,000 "	770,000 "
	<hr/> 709,000 bls.	<hr/> 781,000 bls.
Home Consumption....	406,000 bls.	407,000 bls.
Continental "	267,000 "	302,000 "
America "	22,000 "	68,000 "
	<hr/>	<hr/>
Total sold (first-hand wools)	695,000 bls.	777,000 bls.
	<hr/>	<hr/>
Held over.....	14,000 bls.	4,000 bls.



The net imports amounted to 706,000 bales, and as there were 3,000 bales held over from last year, the total available supply was 709,000 bales. The quantity available for each sale and the destination of the purchases are shown in the table which follows :

LONDON SALES—COLONIAL WOOL, FIRST FIVE SERIES, 1910.

	Available.	England.	Continent.	America.	Total Sales.	Held Over.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
Jan. 1, 1910.....	.....	.....	.....	.....	.....	3,000
Jan. 18-Feb. 4 .....	180,000	80,000	83,000	12,000	175,000	5,000
March 8-23 .....	139,000	78,000	46,000	6,000	130,000	9,000
April 26-May 12....	177,000	94,000	54,000	4,000	152,000	25,000
July 12-26.....	159,000	85,000	42,000	.....	127,000	32,000
Sept. 27-Oct. 8.....	125,000	69,000	42,000	.....	.....	14,000

The total sales were 695,000 bales distributed as follows: to England, 406,000 bales; the Continent, 267,000 bales; to America, 22,000 bales, and 14,000 bales were held over for the next series, which began November 22, the entries closing November 14. The data at hand was insufficient for an estimate of the quantity available for the series.

Of the fifth series, which began September 27, Helmuth Schwartze & Co. said :

The sales were well attended and witnessed good competition, both from the Home trade and the Continent, but America again took no part. Merino wool opened fully on a par with the closing rates of July and hardened further after a few days, so that at the close greasy wools are 1/2d., scoureds from 1/2d. to 1d. above that level.

Fine crossbreds opened at July parity, but gave way after the first week and now sell at from par to 5 per cent decline. Medium wools too, which at first sold rather above last series, are now scarcely as dear. Coarse wools rose from 5 to 10 per cent at the opening but lost some of the advance and close a bare 5 per cent above July.

Good Cape grease and super snow whites sold about on a par with last sales, while medium scoureds were 1/2d. easier.

The preceding tabular statements refer only to the London

market. Adding the transit wools and the direct imports, the total deliveries to the trade as stated by Helmuth Schwartz & Co. are as follows :

Distribution of Colonial Wool through England and direct.	Total Season. 1908.	Total Season. 1909.	Five Series. 1909.	Five Series. 1910.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
Sold to England .....	909,000	917,000	847,000	932,000
“ “ Continent.....	1,348,000	1,588,000	1,447,000	1,523,000
“ “ America .....	94,000	179,000	171,000	125,000
	2,351,000	2,684,000	2,465,000	2,580,000

The deliveries for the five series show an increase of 115,000 bales, of which 85,000 bales fall to the share of the home trade. The Continental consumption shows an increase of 76,000 bales and the American a decrease of 46,000 bales. A marked feature of the two last series has been the absence of Americans though the sales were well attended, with a good competition from English and Continental buyers.

Buxton, Ronald & Company, in their Annual Colonial Wool Report under date of October 27, 1910, say of the London wool year just closed :

It is difficult to construct a brief formula which will cover all the circumstances of the past twelve months under any of the following heads, but from a general point of view it may be said that politics, crops, the home money market and the international monetary situation, although displaying at times troublesome and perplexing features, all conspired in the ultimate result to create a prosperity which probably has never been equalled in the history of the world. Practically all its chief productions have been absorbed with comparative eagerness at paying prices, and Australasian and South African wool growers in particular have been fortunate individuals. In many previous years high prices have been consequent on short supplies caused by droughts or other misfortunes to which the sheep raising industry is liable. This last season high prices have coincided with large supplies, in fact from the figures for the Australasian Colonies relating to their sheep and wool industry for the statistical year which ended in June last, it is seen that all records have been exceeded, not only by the increase of numbers, but by sheer

improvement in the methods of breeding and rearing high class sheep. The activity of the home and continental worsted and woolen trades, and more especially the former, has been all along continuous and increasing. Commission combers and spinners of both merinos and crossbreds have been kept working all through at full speed, and although high prices have made dealers' operations of necessity arduous, fair profits have been made, at any rate in fine wools. Trade has had a good innings.

The only exception to this satisfactory state of affairs has been the unfavorable position of the wool and cotton manufacturing industries in the United States, which have experienced a lack of demand, curtailment of production and little or no profits.

The future from a general trade point of view seems to promise well, and the conditions at home here and on the Continent, kept free from disputes between labor and capital, are sound enough. In America improvement may, with politics more settled, not unreasonably be fairly counted on, and in other parts of the world the outlets for wool will continue to increase. As to supplies, the increase from Australia herself will be considerable and her clip will probably prove a record one. New Zealand, however, after her recent expansion can scarcely this year again show an increase, and in South Africa drought has been experienced in many parts and losses sustained. South America, which suffered so severely last year, will send a better clip this time, but it is not likely that there will be any increase in the number of bales, in fact, in some well-informed quarters, a further falling off is not altogether unexpected.

## LIVERPOOL WOOL SALES.

Messrs. Hughes & Isherwood report the Liverpool wool sales for the first five series for 1910 in bales as follows :

January.	March.	May.	July.	September.	Bought by
8,650	2,600	3,150	4,000	2,400	America.
7,650	4,600	7,100	6,300	6,600	Continent.
15,599	11,124	20,045	18,143	20,389	Home trade.
31,899	18,324	30,295	28,443	29,389	Total sold.
6,377	4,284	6,685	6,514	9,659	Withdrawn.
38,276	22,608	36,980	34,957	39,048	Bales offered.

The sales for the six series of 1909 are given for comparison :

January.	March.	May.	July.	September.	November.	Bought by
5,250	6,700	5,400	8,500	8,900	8,900	America.
3,870	7,000	6,300	4,200	4,900	5,400	Continent.
10,611	15,144	19,879	13,075	16,903	14,540	Home trade.
19,731	28,844	31,579	25,775	30,703	28,840	Total sold.
909	1,936	8,551	8,135	6,725	3,823	Withdrawn.
20,640	30,780	40,130	33,910	37,428	32,663	Bales offered.

It appears that the total bales sold in the five series in 1909 and 1910 amounted to 136,632 and 148,350 respectively, as shown below :

	1909.	1910.
Sold to America.....	34,750	20,800
“ “ Continent.....	26,270	32,250
“ “ Home trade.....	75,612	95,300
Total.....	136,632	148,350

The quantity for America fell off in 1910, 13,950 bales, while that taken for the continent increased 5,980 bales and the home trade took 19,688 more bales than in 1909. The net increase over 1909 was 11,718 bales.

Messrs. Hughes & Isherwood say of the fifth series :

The result of the sales ought to be considered very satisfactory by shippers for, with an offering only once exceeded in the history of the trade, prices show an actual gain on the preceding series, and this notwithstanding that America took considerably less than she did then.

The Liverpool sales for the six series in 1909 amounted to 165,472 bales distributed thus: To America, 43,650; to the continent, 31,670, and to the home trade, 90,152 bales.

## ANTWERP AUCTIONS.

The fifth series of auctions at Antwerp, at which England and Germany were the principal buyers, closed September 24, with sales for the five series as reported by Joh. Dan. Fuhrmann as follows:

	Bales.
Buenos Ayres.....	3,055
Punta Arenas.....	432
Fray Bentos.....	305
Montevideo.....	12,097
Entre Rio .....	305
Rio Grande.....	733
Total River Plate .....	<u>16,927</u>
Australia.....	197
Cape.....	16
Spain .....	514
Southwest Africa .....	65
All other.....	<u>10</u>
Total sundry.....	<u>802</u>
Total sales .....	<u><u>17,729</u></u>

During the auctions considerable quantities of wool were sold by private contract.

## THE SEASON IN AUSTRALASIA.

Messrs. Dalgety & Co. in their annual review of the Australasian season of 1909-10 issued in July of the current year, from which as usual we make copious extracts, say:

The statistical year just closed has been the most generally satisfactory one in the history of Australia, while results achieved in New Zealand have been above the high average previously established in the Dominion. As a whole, the rainfall in both countries has been abundant, and concurrently with great expansion in production the markets for all the primary products have ruled at a high level. Seldom indeed has there been such a combination of favorable conditions, and Australasian producers can look back upon a year of unbroken prosperity. Sheep husbandry still by far the most important industry of Australasia, shows considerable advancement. The flocks in Australia and New Zealand have increased during the year by 6,179,614 head, the total being now 115,525,581 head, a higher number than at any period during the past sixteen years, and approaching the record of the year 1891, when the figures reached 124,991,920.



### 336 NATIONAL ASSOCIATION OF WOOL MANUFACTURERS.

TABLE XVI.—NUMBER OF SHEEP AT CLOSE OF YEAR IN AUSTRALASIA,  
1905-1909.

	1909.	1908.	1907.	1906.	1905.
New South Wales . . . . .	46,194,178	43,329,384	44,555,879	44,132,421	39,494,207
Victoria . . . . .	12,937,983	12,545,742	14,146,734	12,937,440	11,455,115
Queensland . . . . .	19,593,791	18,348,851	16,738,050	14,886,438	12,635,231
South Australia . . . . .	6,898,450	6,829,637	7,023,000	6,700,000	6,524,300
West Australia . . . . .	4,692,419	4,098,500	3,694,852	3,200,000	3,140,360
Tasmania . . . . .	1,728,053	1,744,800	1,729,394	1,583,560	1,556,460
Australia and Tasmania . .	92,044,874	86,896,914	87,887,909	83,439,859	74,705,673
New Zealand . . . . .	23,480,707	22,449,053	20,983,772	20,108,471	19,130,875
Total . . . . .	115,525,581	109,345,967	108,871,681	103,548,330	93,836,548

Not only have numbers increased, but the sheep continue to improve, as is shown by the fact that though there were more sheep to shear sixteen to twenty years ago, the past clip has easily eclipsed all previous records. The actual oversea shipments of wool during the twelve months have amounted to 1,921,705 bales from Australia, and 512,938 bales from New Zealand, a total of no less than 2,434,643 bales, or 816,861,665 pounds, valued at £33,128,496, an increase of 146,539 bales, or 60,271,502 pounds, and in money value of £7,177,584, as compared with the record clip of the previous, 1908-9, season. This result is all the more striking when it is realized that the two million bales limit was reached for the first time in the year 1906-7, and that the past year's figures are nearly double those of the year 1903-4. There could be no better proof of the marvellous recuperative powers of this country, from which the exports of other products have increased in almost like manner.

TABLE XVII.—AUSTRALASIAN WOOL EXPORTS IN BALES.

*Compiled from Customs Returns.*

	SEASONS OF				
	1909-10.	1908-9.	1907-8.	1906-7.	1905-6.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
New South Wales . . . . .	931,208	915,617	856,407	956,630	816,000
Victoria . . . . .	510,343	454,942	300,390	301,000	267,500
Queensland . . . . .	238,722	184,207	234,709	204,000	176,000
South Australia . . . . .	160,573	165,513	143,274	126,000	119,000
Western Australia . . . . .	63,555	56,785	52,500	42,000	42,500
Tasmania . . . . .	17,304	19,283	33,610	33,500	33,600
New Zealand . . . . .	512,938	491,757	436,941	427,058	415,000
Total . . . . .	2,434,643	2,288,104	2,057,831	2,090,188	1,869,500

TABLE XVIII. — EXPORTS OF WOOL FROM AUSTRALASIA IN POUNDS.

*Seasons of 1907-8, 1908-9, and 1909-10.*

	1907-8.	1908-9.	1909-10.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
New South Wales .....	267,545,312	296,659,908	307,598,640
Victoria .....	144,959,313	147,401,208	165,968,475
Queensland .....	48,888,320	59,683,068	78,092,094
South Australia .....	52,445,440	53,626,212	52,206,225
West Australia .....	18,420,435	18,398,340	23,833,329
Tasmania .....	5,999,250	6,247,692	5,018,160
New Zealand .....	148,559,940	174,573,735	184,144,742
	686,818,010	756,590,163	816,861,665

An examination of these tables shows that there has been an increase of 4.9 pounds per bale as compared with last year. Then the average was 330.6 pounds, it is now 335.5 pounds. The number of bales exported increased 146,539 and the total export was 60,271,502 pounds more than in the previous year.

The wool clip is sure to show some further increase in volume, and most of the output will, no doubt, be marketed in the selling centers of Australasia, which seem to gain in popularity each year, and provided values rule up to, or even moderately close to, rates now current, wool growers will again reap a good reward for their labors, which continue to do so much towards the general prosperity of these lands. In this connection it is worthy of note that the value of the total exports from Australia in 1909 amounted to £111,001,681, of which amount wool was responsible for £25,483,110. From New Zealand the total exports were valued at £19,661,781, of which wool accounted for £6,990,188.

TABLE XIX. — VALUE, AUSTRALASIAN CLIP, 1881-1909.

Calendar Year.	Total Value Wool Exports.	Calendar Year.	Total Value Wool Exports.	Calendar Year.	Total Value Wool Exports.
	£		£		£
1881.....	16,136,082	1902.....	16,109,026	1906.....	29,411,424
1891.....	24,063,227	1903.....	18,042,873	1907.....	35,267,851
1896.....	20,433,855	1904.....	21,796,096	1908.....	28,244,993
1901.....	18,936,557	1905.....	25,203,549	1909.....	33,128,496

The average annual value of the wool exported has been £23,897,836, a sum equal to one-third of the value of all exports from Australasia.

The actual production has been over 197,834 bales more than during the year 1908-9, for whilst there were practically no stocks of wool held in the country or at seaboard of July 1, 1909, the previous year's figures had been materially swelled by the inclusion of some 100,000 bales, the product of the 1907-8 season, which were on hand at July 1, 1908, and which were therefore included in the oversea exports for 1908-9. It is remarkable that from 115,525,581 sheep 643,382 more bales of wool have been exported than the record number of 124,991,920 sheep produced in 1891. Our sheep are decidedly producing much more wool per head, but the great difference in the weight of the bales to-day as compared with former times must not be lost sight of by the trade. It is known exactly how many pounds of wool are now produced, but, unfortunately, until the past three years the statistics were only compiled in bales.

The number of fleeces per bale and the number of bales per 1,000 sheep is given in the following statement, which shows that there has been a remarkable decrease in the number of fleeces required to fill a bale since 1896 and at the same time a similar increase in the number of bales required for the fleeces of 1,000 sheep:

Year.	No. of Sheep and Lambs' Fleeces per Bale.	No. of Bales per 1,000 Sheep.
1896-7.....	59.65	16.75
1897-8.....	60.08	16.64
1898-9.....	59.62	16.76
1899-1900.....	57.95	17.25
1900-1901.....	55.88	17.89
1901-2.....	55.42	18.04
1902-3.....	51.36	19.46
1903-4.....	55.51	17.99
1904-5.....	52.70	18.97
1905-6.....	50.27	19.89
1906-7.....	49.65	20.13
1907-8.....	51.72	18.97
1908-9.....	47.79	20.92
1909-10.....	46.49	21.51

The following table shows the increase in recent years, and the extent of the sheep slaughtering business in each of the Austra-

lasian States, a number exceeding one-sixth of the total flock at the close of the year being required to meet the demand for export and the local food supply.

## SHEEP SLAUGHTERED IN AUSTRALASIA, 1909.

State.	Population.	Sheep Slaughtered, 1909.		
		For Local Consumption.	For Export.	Total.
New South Wales ...	1,636,097	4,063,231	1,523,100	5,586,331
Victoria .....	1,302,423	2,473,940	1,114,540	3,588,480
Queensland .....	578,134	568,860	529,100	1,097,960
South Australia .....	418,370	703,918	293,250	997,168
West Australia .....	275,915	547,268	.....	547,268
Tasmania .....	185,386	373,720	.....	373,720
Commonwealth .....	4,396,325	8,730,937	3,459,990	12,190,927
New Zealand .....	1,042,997	2,852,730	5,135,757	7,988,487
Australasia .....	5,439,322	11,583,667	8,595,747	20,179,414

The slaughterings in recent years have been

1906 .....	15,637,087
1907 .....	17,059,780
1908 .....	18,060,052

In 1908, 7,055,302 of the total were for export and 8,595,747 in 1909. The population in 1908 was 5,321,027, requiring 11,004,750 head for local consumption. In 1908 the population had increased to 5,439,322 and the sheep slaughtered for local consumption to 11,583,667, thus showing a slight increase in the per capita consumption.

With a large and good clip, most of which was again sold in Australasia, the trade of the world good, and stocks of wool and woollen goods bare at the commencement, the transactions of buyers during the twelve months have been larger than ever before. Freight and exchange have both ruled at higher rates than during the preceding season, though during the second series the latter dropped to a very low rate as a result of a freight war.

Unpleasant features, which it is necessary to chronicle, were the dispute between buyers and sellers in northern markets in September and the dislocation of business caused by the strike

of coal miners in New South Wales later. In the former, buyers gained the day, whilst in regard to the latter, after a week or so of idleness caused by the uncertainty of being able to obtain bunkered space, brokers met the situation in a broad-minded spirit by inserting a special clause in the conditions of sale, reading as follows:

"If, however, owing to strikes, the buyer has no opportunity of shipping his wool, then the seller shall not receive payment until such time as the buyer shall have a reasonable opportunity to ship and receive bill of lading, and no additional charge shall be made for interest, storage, or insurance."

The delays, though they caused great anxiety at the time, were really blessings in disguise, for breathing space was allowed at a time when there was such a mad rush to realize wool that the market might easily have been smashed, though only temporarily, and buyers are just as anxious to see a large turnover at steady prices as are the selling brokers. Wool buying is a nerve-racking profession, and a panic once started is hard to stop, and very often harder still to understand.

#### AUSTRALIAN EXPORTS AND SALES.

The importance of the Australian wool auctions is shown in the following table, from which it appears that the percentage of sales in the home market has increased from 53 per cent in 1898-9 to 77 per cent in 1909-10, while the actual quantity sold has more than doubled in the twelve years:

#### AUSTRALIAN EXPORTS AND SALES.

Season.	Total Exports.	Sales.	Sales to Exports.
	<i>Bales.</i>	<i>Bales.</i>	
1898-9 .....	1,664,517	890,185	53%
1899-0 .....	1,594,464	915,877	57%
1900-1 .....	1,609,713	808,912	50%
1901-2 .....	1,664,885	1,035,520	62%
1902-3 .....	1,440,722	861,174	60%
1903-4 .....	1,366,942	837,497	61%
1904-5 .....	1,595,734	1,092,651	68%
1905-6 .....	1,869,455	1,354,865	72%
1906-7 .....	2,090,188	1,537,798	74%
1907-8 .....	2,057,831	1,351,121	66%
1908-9 .....	2,288,104	1,657,906	72%
1909-10 .....	2,434,643	1,889,745	77%



The distribution of purchases in Australasia in the past season has been as follows:

	1909-10.	
	Bales.	Per Cent.
United Kingdom.....	529,949	28
Continent.....	1,107,829	59
United States and Canada .....	137,491	7
Japan, China, and India .....	22,591	1
Local manufacturers, etc. ....	91,885	5
	1,889,745	100

The total value of the 1,889,745 bales sold has been £25,712,774; and even presuming that the portion of the clip which has been sent direct to London for sale has only made a like average, the net gain in wealth to Australasia from wool alone will have amounted to

£33,128,496 as compared with  
 £25,950,912 for the preceding year,  
 £26,768,952 for the year 1907-8, and  
 £29,685,740 in 1906-7.

In four years Australasia has exported £115,534,100 worth of raw wool, in addition to well over £1,000,000 worth retained for consumption, and in these figures no allowance has been made for wool exported on skins, or in the form of "tops," i.e., wool partially manufactured.

#### THE YEAR'S FEATURES.

The outstanding features of the year's buying were undoubtedly:

1. Support accorded to crossbreds.
2. Scope of the American demand.
3. Concentration of the world's buying power in these markets.

It is believed that every manufacturer of wool throughout the world now realizes that:

1. Australasia has attained the position of the principal wool producing country of the world.
2. The selection of wool submitted to public auction at the colonial centers is greater and better than in any other market, no less than 77 per cent of the total production having been sold locally during the past season; and that
3. To secure a satisfactory share of the Australasian clip he must be represented by some buyer on this side.

## THE CAUSES OF INCREASED WOOL VALUES.

It may be asked why it is that wool has been in such great demand at advancing values. There is no one reason alone, but there are several good ones, viz.:

1. The wool-using population of the world has of late increased more rapidly than wool production.

2. Wool's greatest competitor—cotton—has been in short supply and relatively dearer than wool, especially coarse wools, and

3. Employment at high wages has been so plentiful that the masses have been in a position to buy clothes, and clothes made mostly of wool, instead of mostly of cotton or shoddy.

Now to go into these reasons somewhat more fully, inquiry may be made: Why has the world's production of wool not kept pace with population, considering the enormous expansion in the production of wool from Australasia of late years? The answer is that the flocks of Europe and Asia continue to decline to such an extent, as also have the flocks of America, both north and south, that despite increases in numbers shorn in Australia, New Zealand and South Africa during the past year, there are over 40,000,000 fewer sheep in the world to-day than there were fifteen years ago, and over 90,000,000 more people using wool.

## PREPARATION OF WOOL FOR MARKET IN AUSTRALASIA.

Considering how far Australasia is ahead of all other countries in the preparation of wool for market, the flood of literature from Great Britain which has been poured in here in reference to jute fiber in wool, tar brands, etc., is surprising, for it is doubtful whether wool is shorn, classed, baled and sold in a less primitive manner in Great Britain to-day as compared with a hundred years ago. The handling of Australasian wool at the London docks leaves much to be desired, for it is there that most of the jute fiber trouble is caused, owing to the manner in which the packs are torn by hooks and then ruthlessly hacked about when being opened for inspection on the show-floors.

A report issued by the Board of Agriculture and Fisheries states:

"Many faults are found with the treatment of the wool after it is shorn. Whereas colonial wool is graded, British wool is generally all mixed together; the sheep are often shorn on straw, with the result that the straw gets into the fiber and is almost impossible to eradicate, and the wool is consequently depreciated; in some districts farmers still keep to the old practice of tying fleeces with cord or rope, which cannot be removed without leaving a little hemp in the wool, which will not dye, and thus spoils the manufactured article."

There is also the following significant notice :

*“ Caution to Growers and Winders of Wool.*

“Whereas, manufacturers and woolstaplers, having for some years past, more particularly of late, sustained considerable loss from the deceitful winding of wool, that is, from the too general practice of enclosing in the fleeces tag locks, lambs’ wool, unwashed wool, felt wool, tar, stones, clay, dung, straw, grass, and also by the pulling of cotted fleeces, etc., etc. . . . deem it necessary to publish extracts from the existing statutes for the prevention and punishment of such practices. They also hereby inform such growers and winders of wool as may hereafter be found in such practices, that they may expect the legal enforcement of the legal penalties for so doing.”

The very old-fashioned methods still in vogue in Great Britain are to be wondered at, because it is truly remarkable that the old land depastures over 31,000,000 sheep. The trouble is, of course, partly attributable to the fact that the carcass is the principal aim of farmers, being so much more valuable than the fleece. But prices for fat stock in Great Britain are not what they used to be, the importation of frozen meat has tended towards lower prices for the locally grown, and now that chilled meat can be poured into the country, the British farmers cannot expect the exorbitant prices for their carcasses such as they have been accustomed to, and this may have the effect of inducing them to pay more attention to wool.

Bitter complaints are still made about so much of the American, Argentine and Uruguayan clips being tied with rope, hemp, and all sorts of twine. A late report from Uruguay reads : Wool is prepared for market here in a very rough manner, roughly shorn, is all bundled together — fleeces, pieces, locks and stained wool, and is then tied with string.

Years ago it was the custom to tie the fleeces in Australasia, but such method was discarded many years ago. There are a few isolated cases of wool still being tied, but in these instances a high-class twine is used.

SOUTH AFRICA.

The production of wool in South Africa has increased with great rapidity since the Boer war, as is shown in the following table, the exports being considered to equal the production :

	Bales.	Lbs.
1900 (war time).....	140,000	34,944,263
1902.....	234,000	79,327,840
1903.....	234,000	65,524,078
1904.....	201,000	64,372,270
1905.....	209,000	63,473,983
1906.....	238,000	70,896,386
1907.....	287,000	77,500,000
1908.....	276,000	81,144,000
1909.....	380,000	111,720,000

According to Messrs. Helmuth Schwartze & Co., the imports of South African wool into Europe of late years (from the November 20th to November 19th period) have been as follows:

	1908-9.	1907-8.	1906-7.	1905-6.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
England (for the sales)	312,082	227,747	245,463	195,960
Continent direct .....	67,946	47,883	41,487	42,463
America direct .....	.....	.....	.....	.....
Total.....	380,028	275,630	286,950	238,423

The general character of these wools is described as sound, free warp combing, of soft handle and good breeding, which would give a clean scoured yield of from 47 to 53 per cent.

#### RIVER PLATE WOOLS.

The export business of River Plate wools is done between July 1 and April 30. Table XX. shows the arrivals of these wools at the various European ports for the past seventeen years, and is followed by a table showing the production for fourteen years, beginning with the season of 1895-6.

The export of River Plate wools in the 1908-9 season was greater by 11,200 metric tons than in the preceding year and greater than any previous year since 1902-3, which again exceeded any year in the series except the banner year 1897-8, when the exports equalled 248,500 metric tons.

TABLE XX. — IMPORTS OF RIVER PLATE WOOLS INTO EUROPE BETWEEN JULY 1 AND APRIL 30 SUCCEEDING, 1894 TO 1910 INCLUSIVE.<sup>1</sup>*In thousands of bales.*

Year.	Dunkirk.	Havre.	Antwerp.	Bremen.	Ham- burg.	Other Ports.	Total.	Of which from Monte- video.
1894	149	14	68	38	56	15	340	34
1895	133	7	78	36	46	30	330	45
1896	195	20	90	50	50	35	440	70
1897	161	11	76	33	58	12	351	35
1898	163	8	80	80	81	56	468	80
1899	221	14	71	45	81	29	461	54
1900	169	8	67	50	61	33	388	45
1901	94	16	52	29	44	35	270	55
1902	208	12	79	34	89	78	500	54
1903	172	9	62	35	65	67	410	51
1904	149	8	58	38	70	48	371	41
1905	132	6	70	35	70	68	381	45
1906	138	33	56	28	73	85	413	56
1907	132	19	55	19	93	71	389	46
1908	121	30	54	16	79	57	357	53
1909	217	5	84	23	111	100	540	110
1910	135	11	58	15	86	63	368	83

<sup>1</sup> Wool circular of Wenz & Co., Reims, May, 1910.

The production for fourteen years<sup>1</sup> (twelve months, October 1 to September 30) is as follows :

SEASON OF	ARGENTINA.			URUGUAY.			GRAND TOTALS.		
	Quan- tity.	Ave. weight, Bales.	Total weight.	Quan- tity.	Ave. weight, Bales.	Total weight.	Quan- tity.	Ave. weight, Bales.	Total weight.
	<i>Bales. a.</i>	<i>Kilo. b.</i>	<i>Metric Tons. a. c.</i>	<i>Bales. a.</i>	<i>Kilo. b.</i>	<i>Metric Tons. a. c.</i>	<i>Bales. a.</i>	<i>Kilo. b.</i>	<i>Metric Tons. a. c.</i>
1895-96.....	443,0	380	168,3	100,0	466	46,6	543,0	396	214,9
1896-97.....	486,0	412	200,3	85,0	466	41,0	574,0	420	241,3
1897-98.....	495,0	417	206,5	90,0	466	42,0	585,0	424	248,5
1898-99.....	487,0	425	207,2	81,0	469	38,0	568,0	431	245,2
1899-00.....	465,0	429	199,4	85,0	470	40,0	550,0	435	239,4
1900-01.....	405,0	445	181,0	86,5	471	40,8	491,5	451	221,8
1901-02.....	444,0	445	197,6	86,0	470	40,4	530,0	449	238,0
1902-03.....	481,0	412	198,4	104,0	471	49,0	585,0	422	247,4
1903-04.....	416,0	420	174,7	86,0	470	40,4	502,0	428	215,1
1904-05.....	411,0	417	171,2	82,5	472	38,9	493,5	425	210,1
1905-06.....	395,0	417	165,0	90,5	450	40,7	485,5	423	212,9
1906-07.....	389,0	417	162,2	99,0	454	44,7	488,0	424	206,9
1907-08.....	427,0	417	178,0	110,0	460	50,6	537,0	426	228,6
1908-09.....	438,0	415	182,0	126,0	459	57,8	564,0	425	239,8

a. Two 00 omitted, thus 443,0 = 443,000.

b. Kilo equals 2,2046 pounds.

c. Metric ton equals 2,204.6 pounds.

<sup>1</sup> Exclusive of local consumption, which may be put at 6,000 tons (14,500 bales) for the Argentine Republic and 1,150 tons (2,500 bales) for Uruguay.



Messrs. Wenz & Co. report as follows :

The past season was remarkable as much for the very inferior clip as for the very extraordinary rapidity with which wool was taken up, and that at rising prices, in spite of a certain feeling of doubt in the stability of crossbred values.

After many months of drought cold rains delayed shearing for three weeks. The whole of the Republic had been affected by the bad winter, but more particularly the South of the province of Buenos Ayres where in many places more than 30 per cent of the sheep and practically all the lambs perished. The total decrease, estimated at over 20 per cent or roughly 100,000 bales, is due not only to the mortality, but to less weight per fleece. Against this must be set an increased quantity of skin wool.

The clip was distinctly bad: thin, weak staple, mushy backs, for the most part dingy and full of vegetable matter.

IMPORTS INTO UNITED STATES OF ARGENTINE WOOLS FOR YEARS 1904-1910 INCLUSIVE.

Fiscal Year.	Class I.	Class II.	Class III.	Total.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1904.....	18,018,443	100,548	10,049,069	28,168,060
1905.....	41,094,617	362,562	6,238,388	47,695,567
1906.....	36,352,480	.....	5,815,447	42,167,927
1907.....	19,247,683	94,866	3,852,659	23,195,208
1908.....	14,311,498	.....	1,909,787	16,221,285
1909.....	51,601,420	106,239	6,672,175	58,379,834
1910.....	27,331,068	37,799	3,713,317	31,082,184

The year shows a large reduction in the imports of the wools of Argentina as compared with the preceding year, which was the greatest reported in the period, being only 53 per cent in quantity, about equally proportioned between the several classes, and is nearly 5,000,000 pounds less than the average of the previous six years.

URUGUAY WOOLS.

In the table on page 345, in which the production of wools in Uruguay is given, the imports into Europe are considered to represent the actual production. It appears that in the last season, October 1 to September 30, in the table, the production was the largest reported, amounting to 57,800 metric tons, equal to 127,325,880 pounds, and is nearly all pure merino blood.

The following table shows the imports of these wools into the United States for the last seven years, from which it appears that these imports in the last year equalled nearly 7 per cent of the total production of that country.

The clip is estimated at 110,000 bales or about the same as last year. Little increase is expected for the coming season as the lambing was poor.

IMPORTS OF URUGUAYAN WOOLS INTO THE UNITED STATES FOR THE YEARS 1904-1910 INCLUSIVE.

Fiscal Year.	Class I.	Class II.	Class III.	Total.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1904.....	112,208	.....	.....	112,208
1905.....	7,044,752	619,377	76,180	7,740,309
1906.....	5,083,195	.....	3,995	5,807,190
1907.....	5,856,437	.....	174	5,856,611
1908.....	1,604,221	.....	.....	1,604,221
1909.....	5,759,852	.....	108,380	5,868,232
1910.....	8,768,627	.....	21,158	8,789,775

The clip was very irregular and on the whole inferior, especially in length, to the preceding one; from certain districts the wool showed a considerable amount of burr. Crossbreds were less dense and more faulty than usual.

THE WORLD'S WOOL PRODUCTION AND CONSUMPTION.

The following table compiled from the latest available official returns and estimates contains an approximate statement of the wool production of the world, from which it appears that the United States furnishes about one-ninth of the total estimated supply, Argentina one-seventh, and Uruguay nearly one-third as much, together they supply one-sixth of the total, while Australasia furnishes a quantity greater than both and equal to nearly one-third of the entire production. The total quantity from all Europe, including the United Kingdom, is less than the product of Australasia. These four divisions together furnish 60 per cent of the whole amount. Together with British South Africa, which supplies over 100,000,000 pounds of wool, they furnish the bulk of the merino and English blood wools. The remainder, including some from Europe, consists mostly of coarse, low-grade wools, suitable mainly for making carpets, common blankets and similar goods.

TABLE XXI. — WOOL PRODUCTION OF THE WORLD.

*From the Latest Official Returns and Estimates.*

COUNTRY.	Wool.
	<i>Pounds.</i>
North America:	
United States .....	321,362,750
British Provinces .....	11,210,000
Mexico .....	7,000,000
Central America and West Indies .....	1,000,000
Total North America .....	340,572,750
South America:	
Argentina .....	414,464,800
Brazil .....	1,130,000
Chile .....	20,754,000
Peru .....	9,940,000
Falkland Islands .....	4,324,000
Uruguay .....	129,961,170
All other South America reported .....	5,000,000
Total South America .....	585,573,970
Europe:	
United Kingdom .....	141,939,600
Austria Hungary .....	41,600,000
France .....	78,000,000
Germany .....	25,600,000
Spain .....	52,000,000
Portugal .....	10,000,000
Greece .....	14,000,000
Italy .....	21,500,000
Russia (Europe) .....	320,000,000
Turkey and Balkan States .....	90,500,000
All other Europe .....	18,000,000
Total Europe .....	813,139,600
Asia:	
British India .....	50,000,000
China .....	50,000,000
Russia (Asiatic) .....	60,000,000
Turkey (Asiatic) .....	45,000,000
Persia .....	12,146,000
All other Asia reported .....	1,000,000
Total Asia .....	218,146,000
Africa:	
Algeria .....	33,184,000
British South Africa .....	111,720,000
Tunis .....	3,735,000
All other Africa reported .....	13,000,000
Total Africa .....	161,639,000
Oceania:	
Australasia .....	833,611,665
All other Oceania reported .....	100,000
Total Oceania .....	833,711,665
Total world .....	2,952,782,985

TABLE XXII. — NUMBER OF SHEEP IN THE WORLD ACCORDING TO THE MOST RECENT AVAILABLE STATISTICS AND ESTIMATES.

Country.	Number of Sheep.
<b>NORTH AMERICA:</b>	
United States:	
Contiguous .....	57,216,000
Hawaii .....	102,098
Porto Rico .....	6,363
Philippine Islands .....	30,428
Total United States (includes lambs) .....	57,354,889
Canada .....	2,738,740
Newfoundland .....	78,052
Mexico .....	3,424,430
Central America .....	92,780
Cuba .....	9,980
British West Indies .....	17,365
Dutch " " .....	22,385
Gadeloupe .....	11,731
Total North America .....	63,750,352
<b>SOUTH AMERICA:</b>	
Argentina .....	67,211,754
Brazil (no estimate available) .....	.....
Chile .....	4,224,266
Uruguay .....	26,000,000
Falkland Islands .....	688,705
Colombia .....	746,000
Other South America .....	409,040
Total South America .....	99,279,765
<b>EUROPE:</b>	
Austria Hungary .....	13,974,428
Belgium .....	235,722
Bulgaria .....	8,131,004
Denmark, Iceland, and Faroe Islands .....	1,502,925
Finland .....	912,467
France .....	17,460,284
Germany .....	7,703,710
Greece .....	4,568,158
Italy .....	11,160,420
Montenegro .....	400,000
Netherlands .....	606,785
Norway .....	1,393,488
Portugal .....	3,150,000
Roumania .....	5,655,444
Russia in Europe .....	<sup>1</sup> 45,840,541
Servia .....	3,160,166
Spain .....	16,119,051
Sweden .....	1,021,727
Switzerland .....	209,997
Turkey .....	10,000,000
United Kingdom .....	31,249,353
All other Europe .....	22,530
Total Europe .....	184,478,200

<sup>1</sup> Includes goats.

TABLE XXII. — *Continued.*

Country.	Number of Sheep.
<b>ASIA :</b>	
British India .....	21,824,229
Ceylon.....	100,603
Cyprus .....	301,669
Japan.....	3,949
Russia in Asia.....	23,356,557
Turkey in Asia .....	45,000,000
China (no estimate available).....	.....
Total Asia .....	90,587,007
<b>AFRICA :</b>	
Algeria .....	9,314,515
British East Africa.....	3,740,110
Cape of Good Hope.....	16,323,987
Natal. ....	945,477
Orange River Colony.....	8,020,308
Rhodesia.....	204,000
Transvaal.....	2,810,053
German East Africa .....	1,560,000
Sudan .....	1,421,721
Tunis.....	833,562
All other Africa .....	477,523
Total Africa.....	45,651,256
<b>OCEANIA :</b>	
Australia.....	92,044,874
New Zealand.....	23,480,707
Australasia.....	115,525,581
Other Oceania.....	12,452
Total Oceania .....	115,538,033
Total World.....	656,639,502

The preceding table contains the most recent statistics obtainable of the number of sheep in the world. It will be noticed that no figures are given for Brazil or China, both of which countries, especially the latter, produce considerable quantities of wool, mostly of poor quality. It is probable that more complete statistics would increase the world's total to 700,000,000 head.



## CONSUMPTION OF RAW WOOL IN PRINCIPAL MANUFACTURING COUNTRIES.

Comparative statistics of the quantity of wool consumed by the great wool manufacturing nations are very incomplete and imperfect, and except in the United States the reports of quantities used are usually estimates rather than the results of careful statistical inquiry. The latest comparative statement available is that contained in the Chamberlain Tariff Commission Report (London, 1905), from which the following table and comment are taken, and in that the year 1902 is the only year in which a report is given for each of the countries named.

## ESTIMATED RAW WOOL RETAINED FOR HOME CONSUMPTION IN PRINCIPAL MANUFACTURING COUNTRIES AND YEARS.\* (In million lbs.)

	Germany.	France.	Austria-Hungary.	Italy.	United States.	United Kingdom.
1875.....	159	†	†	†	248	351
1880.....	†	†	38	38	356	372
1885.....	251	391	†	†	374	365
1890.....	†	428	57	†	378	425
1895.....	410	441	†	49	514	503
1900.....	316	381	†	†	439	499
1902.....	380	457	132	59	480	492
1903.....	.....	.....	.....	.....	461	448
1904.....	.....	.....	.....	.....	462	437

\* Based on Official Returns, estimates of the Bradford Chamber of Commerce and on Conrad's "Handwörter buch der Staatswissenschaften."

† In these years figures for domestic wool production are not available.

"According to the table, the consumption of wool in the United Kingdom has risen by 86 million pounds, or 24 per cent between the years 1875 and 1904. In the same period, the consumption of wool in the United States has risen by 214 million pounds, or 87 per cent. In Germany, the increase from 1875 to 1902 amounted to 221 million pounds, representing 140 per cent on the consumption in the earlier year. In Austria-Hungary, the increase from 1880 to 1902 amounted to 250 per cent; and in Italy to 55 per cent. Thus in every country the percentage increase in the consumption of raw wool has been greater than in the United Kingdom; and in every case also, except in France and Italy, the increase in the amount consumed has been greater than in the United Kingdom."

The relative importance, as wool consumers of the several countries reported, is as follows:

United Kingdom.....	492,000,000 pounds.
United States.....	480,000,000 “
France .....	457,000,000 “
Germany .....	380,000,000 “
Austria Hungary .....	132,000,000 “
Italy .....	57,000,000 “
	<hr/>
	1,998,000,000

Together they consume almost 80 per cent of the world's annual wool production.

In the consumption of wool the United States is far and away in advance of either of the other great nations, for although somewhat behind the United Kingdom in the quantity required for her factories, all that is manufactured here is retained here for the clothing and other uses of our people, and in addition vast quantities of woollen fabrics are imported from abroad. A large percentage of the wool consumed in the factories of other countries is manufactured for export and sold for use beyond their borders, giving the United States a preëminence as a wool consuming country greatly in advance of its position as it appears in the Report.

## RETIREMENT OF MR. WHITMAN.

At a meeting of the Executive Committee of the National Association of Wool Manufacturers, held on Tuesday, December 6, at Young's Hotel, Boston, Mr. William Whitman, President of the Arlington Mills and for seventeen years President of this Association, announced to his colleagues that he should not be a candidate for reelection, and intended to retire from the Presidency of the Association at the next annual meeting, on February 1, 1911.

Mr. Whitman had been considering this action for a long time. In fact, when he was reelected to the Presidency a year ago he stated to some of his friends that this would be his last year of service, that he believed that he had done his duty and more, and that before another annual meeting was held he should take occasion to inform his associates of his retirement.

The meeting of the Executive Committee was very fully attended. After luncheon Mr. Whitman addressed the committee and read his letter of withdrawal as follows :

BOSTON, December 6, 1910.

TO THE EXECUTIVE COMMITTEE OF THE NATIONAL ASSOCIATION OF  
WOOL MANUFACTURERS :

I have called this meeting of the Executive Committee to announce to all of you what some of you know I have long had in mind — that, on the expiration of this year's service, February 1 next, I shall not be a candidate for reelection, and shall retire from the Presidency of the National Association of Wool Manufacturers.

This step is taken with deep regret. Though the burdens of the post are heavy the pleasures are great. I have been, as you know, subjected to severe attack from the foes of our industry, as any man must be who stands as chosen champion of any great American industry, prosperous because of the enjoyment of the best market in the world. But though my service has brought upon me the shafts of malice and hatred there has been compensation in your own loyal support and in the friendship throughout these years of many — indeed, I may say most — of the distinguished public men who have directed the course of our national legislation.

My acquaintance with these men goes back to the days of Morrill and Sherman, who laid, strong and broad, the foundations of the American system of protection as now we know it. I esteem it a privilege and an honor to have had the friendship and the confidence of these men, and of McKinley, Dingley, Reed, Allison, and Aldrich. And though in conflict with the leaders of the other side, it is pleasant now to recall the frank and courteous treatment which I have almost uniformly received from the really great men of the Democratic party.

This Association of ours was founded in 1864. During nearly all its life I have been a member; throughout most of this time an officer; for seventeen years your President. Again and again I have had the honor of being the spokesman of our whole industry before the committees of Congress. This is an unusual experience, and I cannot but appreciate the fact that this long contact with strong, wise public men had a broadening effect on my own mind and my outlook on the momentous public questions of the time.

This is something for which I shall be grateful as long as I live. And I shall not be less grateful for the pleasure and the privilege of these years of close association with the sterling men of our own organization here who have stood shoulder to shoulder with me in every crisis of our industry. We are, with perhaps one exception, the oldest organization of this national character in America. The National Association of Wool Manufacturers has had a continuous, active, successful life of forty-six years, and as I relinquish the honorable office of your President it is with pride and satisfaction that the resources of this organization are greater, its membership more representative, and its unity more complete than ever before.

In the ranks of this Association we have been and are comrades and friends, recognizing always our mutual interdependence and that the interests of one are the interests of all, and we may well be gratified with the success which has crowned our united labors. Since 1860, before the Association was formed, the value of the products of our woolen industry has been made to increase more than tenfold. We have seen the United States rise from a position of humiliating dependence on foreign nations for the greater part of the woolen clothing of its people to a position where nearly all of the material for the woolen clothing of the American people is made in American mills. We live in a wonderful age, in a land of stupendous achievement, but when all conditions, all difficulties are considered, I doubt whether any field of industrial endeavor has witnessed a triumph more significant, more decisive than our own.

Within the past forty years the wool manufacture in America has undergone a radical evolution. Many of the smaller, older mills have disappeared, and a marked tendency has developed toward large establishments under corporate management and toward concentration of modern establishments in a relatively few advantageous localities.

This evolution is characteristic of our times. This readjustment of conditions has involved much difficulty, but out of it the industry as a whole has come stronger, more self-reliant, better fitted to cope with modern conditions.

All through my service the result which has been sought has invariably been the welfare of the whole industry. Every measure of legislation I have advocated has been in the common interest. You have recognized this in a very gratifying way by the unity with which you have sustained me. The best good of all alike has been our object, and with no other purpose could such an organization as ours have existed unbroken for so many years.

Even now, with the great strength of our industry vindicating the principles of our conduct, we are not to be free from ignorant or malicious attack. We never shall be free so long as alien rivals cherish hope of breaking our defences and seizing with their cheap labor the richest market in the world. But I can see no immediate danger of serious attack upon our industry. A long life has taught me an abiding faith in the honesty of purpose and final wisdom of judgment of my fellow-men. They may occasionally heed blind leaders, but in the long run they hold to the right road. Never was there a sounder truth than that famous saying of the great American to whom protectionism and patriotism were synonymous, that while some of the people may be fooled all of the time and all of the people some of the time, you can never fool all of the people all of the time. Before any grave harm can be done I believe that the American people will rebuke the demagogues who in the late election led them astray, and will overwhelmingly proclaim their adherence to the economic faith of Lincoln and McKinley.

I have served you as President longer by far than any of my honored predecessors. I have reached an age when I need more and more, and perhaps deserve, a rest after long years of work in behalf of the industry. My own business, the interests of my associates, the desires of my family, all make their imperative demand, and, therefore, in ample season for you and the other members of the Association to consult and fix upon your choice as my successor, I announce, for the reasons already stated, that I cannot be a candidate for reelection at the annual meeting, February 1.

In retiring from the Presidency of the Association I cannot refrain from paying a tribute to one who has been of great assistance to me for more than two years. I refer to our accomplished secretary, Mr. Winthrop L. Marvin, a man who has had many years' service as an editorial writer, broad experience in public affairs, two years' active, intelligent and valuable work in our organization, a man of good judgment, high character, and sound economic principles. It is a pleasure for me to be able to say that my personal as well as official



relations with Mr. Marvin have been all that could be desired. His untiring zeal and his ability have made him a most efficient co-worker.

Respectfully yours,

WILLIAM WHITMAN.

Mr. J. F. Maynard, President of the Globe Woolen Company of Utica, New York, was the first to respond to Mr. Whitman's statement. Mr. Maynard said that the announcement was sad news to every member of the National Association of Wool Manufacturers. For himself he did not wish to accept the withdrawal unless Mr. Whitman's motives were absolutely imperative.

Mr. John Hopewell, of L. C. Chase & Co. of Boston, heartily eulogized Mr. Whitman's work as a most important one, of enduring benefit to the Association and the industry.

Mr. Charles W. Leonard, of Holden, Leonard & Co. of Boston, hoped that Mr. Whitman could still be looked to to help the Association and the industry in an independent way.

Mr. Thomas Oakes, of Thomas Oakes & Co. of Bloomfield, N.J., expressed the deep regret which he knew was shared by all the members of the committee, and made a personal appeal to Mr. Whitman to consent to be President another year.

Mr. George Kunhardt, of Lawrence, Mass., said that Mr. Whitman was retiring at a time when he had the unanimous support of the Association. His motives Mr. Kunhardt knew to be personal and family reasons which could not be set aside. Mr. Kunhardt moved that the President's statement be made a part of the record of the meeting, and that a committee be appointed consisting of Mr. Frederic S. Clark, a Vice-President of the Association and President of the Talbot Mills, and Mr. Winthrop L. Marvin, Secretary and Treasurer of the Association, to prepare suitable resolutions appreciative of Mr. Whitman's distinguished services, and to present the resolutions at the annual meeting on February 1, 1911. The motion was unanimously adopted.

Mr. Frederic S. Clark spoke of the generous time and strength which Mr. Whitman had given to the work of the National Association and to the defence of the wool manufacturing industry. He regretted exceedingly that Mr. Whit-

man had made the announcement of his withdrawal, but it could not be denied that he no longer had any right to withstand the demands of his business and his family.

President Whitman thanked his associates for their cordial expressions of regard. He had not wished to give up the Presidency, but the truth was that he had come to a point when he must surrender some part of the work of an active and crowded life, and there were large business reasons, personal interests, the debt he owed to those associated with him, but above all consideration for his family, which made his decision irrevocable.

Mr. Whitman added: "The woolen tariff has been said to be the keystone of the arch of protection. It has been more violently assailed in the past half century than any other part of the tariff, because it really is the arch of the protective system. In 1865 the two branches of the common industry came to an agreement uniting the manufacturers of the East and the wool growers of the West in so strong a combination that, except in one period, it has never been broken. Assault upon me has come in part from the malice of personal enemies, but this, after all, is only a small and insignificant part. The attack upon me is actually an attack upon the woolen schedule, in the hope that the woolen schedule may be broken down. The duty on wool considered from the material standpoint is insignificant. Under free wool materials would not be five cents a pound lower. If we should lose our wool the diminution would affect the prices of wool all over the world. The attack on the wool tariff is not really made in the interests of the consumer. It is made for political purposes. This is an outrage. There has been and is no argument against the wool and woolen schedule which has not been answered in advance by the arguments and testimony presented by the National Association of Wool Manufacturers in Washington."

A Nominating Committee, to select a list of officers for the annual meeting, February 1, 1911, was appointed by President Whitman as follows: Francis T. Maxwell, Chairman; Thomas Oakes, H. A. Francis, Franklin W. Hobbs, J. F. Maynard, Charles W. Leonard, and Joseph R. Grundy.

## PIECEMEAL REVISION.

THE CASE AGAINST AMENDING THE TARIFF ONE SCHEDULE  
AT A TIME.

THERE are good men in both the leading political parties who hope it will never again be necessary to have a general revision of the tariff and who think, or hope, it may be practicable to revise only one schedule at a time. When protectionists favor this their object is to prevent a general disturbance of business. Probably the opponents of protection share this motive, but many of them have another, and that is to divide the forces of protection. When Richard Cobden sought to have Louis Napoleon do away with protection in France, he advised the Emperor to take only one industry at a time.

The method of revision, if not revision itself, has become a present question in the United States. Some of the state platforms and many of the leaders of both parties have this year declared for revision by taking only one schedule at a time. It may be said to be a popular movement. Its practicability, and the justice of it, have, however, been so little considered that it seems opportune, as Congress is about to assemble, to present a few thoughts bearing upon these phases of the proposition.

On the twenty-fourth of last May, Representative Ebenezer J. Hill, of Connecticut, who is a member of the Committee on Ways and Means, and in the last revision was an advocate of lower duties, offered in the House a new joint rule, as follows :

*Resolved by the House of Representatives (the Senate concurring),*  
That the following shall be a joint rule of the two Houses :

Whenever a bill for raising revenue shall originate in the House of Representatives and, having been passed by the House, shall have been received in the Senate, it shall in the Senate be subject to such amendments only as shall modify its provisions for duties or taxes on articles therein named, and no amendments laying duties or taxes on articles

not included in the bill as received from the House shall be in 'order, either to the bill as received in the Senate or as amendments to the Senate amendments when they may be considered in the House.

Since the Constitution permits each House of Congress to frame its own rules, and in view of the well understood rivalry between the houses, it will be strange if the Senate does not regard the foregoing as transcending the proper scope of a joint rule and as an attempt by the House to frame a rule for the Senate.

If, however, the Senate should not be sensitive on that subject, it may raise the graver question of the right of a majority of its own members to close debate. A majority may, to be sure, under the precedent of July 12, 1867, limit the scope of amendments, but not since 1806 has there been a rule for the "previous question" in the Senate, and the attempt to revive it by a special rule on the so-called "force bill" in 1891 signally failed. Apparently the older Senators of both parties respect the right of limitless discussion in that body as a palladium of liberty, and more than once its exercise has prevented legislation that would have done damage.

It is obvious that if some measure for revision is opposed by any Senator, he can, to use a common expression, "talk it to death," and the whole country may be grateful to him afterwards, as it was to Senators Carter of Montana and Quay of Pennsylvania for thus defeating certain measures that were popular at the time. It is hardly conceivable that unanimous consent can be obtained in the Senate for any plan for partial revision, because many Senators will doubtless consider any pending measure as unjust to some of the industries to be affected. Thus it seems to be impracticable. If it is impracticable it is impossible, and why should Congress or the people waste time upon it? The very agitation of it hurts business, and it is never a kindness to the people to mislead them with delusive hopes.

To determine whether or not partial revision would work injustice, we have only to consider the inter-relationship of

industries. A schedule is not a tariff, any more than a pinion or a cam is a machine. Nothing is better understood in physics than that each part of a mechanism must be sized and shaped and actuated with reference to the whole. Otherwise there will be imperfect action and no end of friction until there comes a crash. Tariffs were not divided into schedules until 1846, and then only with reference to the rates of duty. They were not divided with reference to industries or subject matter until 1883, and then only for convenience in finding. No enlightened statesman ever thought of segregating either industries or duties so that they should have no reference to each other. Every one recognizes that costs of production constitute an important factor, but by no means all the factors, in fixing both prices and duties. The price of a yard of cloth is a composite of the costs of labor, raw materials, machines, power, buildings, land, and of the oil, lights, bookkeeping, and general management of the producing concern, not to mention interest on the capital, which reformers find it popular to disregard. Any man can make a better list in his own business. Most of these elements are found in different schedules. When a tariff is framed duties upon all these elements are adjusted so as to give it balance. When it is changed, should they be ignored?

These thoughts are not new, and piecemeal revision is not a new conception. When the Democratic party had the House but not the Senate of the Fifty-Second Congress (1892), it put through the House several separate tariff measures which Thomas B. Reed called the "pop-gun bills." As described by Edward Stanwood in his "Tariff Controversies of the Nineteenth Century,"<sup>1</sup> they were (*a*) a bill to place wool on the free list and to reduce the duty on woolen goods; (*b*) a bill to admit free of duty bagging for cotton, machinery for manufacturing bagging, cotton-ties, and cotton-gins; (*c*) a bill to place binding-twine on the free list; (*d*) a bill to reduce and ultimately to abolish the duty on tin

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<sup>1</sup> Houghton, Mifflin & Co., 1903.



andterne plates; and (*e*) to reduce the duty on lead ores. Elaborate reports were made upon them in the House, but the Senate only referred them and never called them up. The report of the Republican minority of the Committee on Ways and Means (namely John Dalzell, T. B. Reed, J. C. Burrows, J. McKenna, and S. E. Payne) made the following conclusive points on the cotton-ties and cotton-bagging bill:

“The measure recommended by the majority proposes to admit them free, but to preserve the duty on ‘barrel hoops of iron or steel.’ No reason has been given for making such distinction, and it is as difficult to imagine any, as it is to imagine why either should be put on the free list.

“Why a crude article of iron or steel should be subject to duty and a more finished product, of which the crude article is the raw material, should come in free is one of those things difficult to be understood. Such an illogical proposition could only come from the advocates of a policy which would deal in spots with a great measure of legislation, which, whether it be good or bad, is at least built consistently upon a plan. Nothing more mischievous can be conceived, and not even the necessity of making laws for the campaign purposes of the Democratic party, irrespective of the needs of the country, can justify such action.

“No reason has been suggested by the majority for providing one kind of legislation for machinery relating to the cotton industry and another for all other kinds of machinery; and we are satisfied, therefore, to dismiss this part of the bill with the remark only that it is of a piece with what seems to be the mischievous policy of the majority, to deal with tariff legislation in spots and without regard to consistency.”

The same men, reporting on the bill for free binding twine, presented the same general idea in the following paragraph, which was written by Mr. Payne, who is now chairman of the Ways and Means Committee:

“This bill presents a good illustration of the folly of attempting to tinker the tariff by piecemeal; it includes in its exemption from duty binder twine made from jute. The effect of this would be to admit free of duty the large class of jute yarns or twine in advanced state of manufacture, which could be used in all forms of jute bagging, twine, and rope, and which would disarrange the entire manufacture of jute goods in this country. The truth is, the various items in a tariff are so interwoven and related one to another that an amendment cannot safely be made without a comprehensive view and study of the whole question, proceeding upon some fixed principle of economic law. If free trade is the correct principle, and best suited for the interests of this country, all the tariff schedules should be reviewed with this end in view, that the proper relations might be observed in the proposed enactment.”

Those who favor revising one schedule at a time assume that it will put an end to log rolling. What reason is there to suppose it would have this effect? Legislation upon all contested subjects is usually the result of either compromise or combination. Whichever schedule is first taken up, people who are directly concerned in others will become apprehensive and will naturally unite and recruit to defeat the attack in its beginning. This will be log rolling just as much as though it should occur at a later stage. Whoever thinks otherwise disregards either legislative history or the tendencies of human nature.

The chief reason which is given for piecemeal revision is to make short work, so as to disturb business as little as possible. I am afraid it would have exactly the opposite effect. Instead of making an end of revision for a good long time, it would make the process constant, for not much sooner would one schedule be disposed of than theorists and politicians and interested persons would clamor for taking up another. If nothing were sought but the correction of an error, as revisionists too mildly put the claim, a new policy or method would not be necessary, because more than once

Congress has made corrections by unanimous consent. Single schedule or single subject revision is a very different thing from that, for inevitably it would be highly controversial — more so, indeed, than ever before on account of the injustice, inequality and inconsistencies which it would introduce.

I forbear to discuss the subject in the light of recent changes in politics, or of new ideas of reform, because the tariff rests upon principle — either protection or free trade — and cannot be taken away from this fundamental consideration by any mere method. If any Republican thinks he can avert a Democratic revision, in case the Democrats come into full power, by making haste to change a few duties of which they complain, he reckons without his host. If he thinks Democratic success at the polls can be prevented by Republicans getting upon Democratic ground, he has only to observe that insurgency at the caucus often means Democratic success at the polls, and that the great body of Republicans stand and will continue to stand for their beliefs. Concession is weakness and wobbling is defeat.

ALBERT CLARKE.

## THE INTERESTS.

THE MAGNITUDE OF OUR INDUSTRIES AND ORGANIZATIONS  
— PARTICIPATION IN POLITICS INEVITABLE.

DURING the recent political campaign, which has been waged with unusual vigor in many States, the statement was often reiterated that "the interests must be driven from politics." This is a statement easy to make but a task impossible to accomplish. One might as well try to prevent the Mississippi from participating in the business activities of the Central and Southern States. "The interests" will continue to take part in politics so long as men have votes and Congress enacts laws.

What are "the interests"?

In 1790 all but 10 per cent of our population was supported by agriculture, and the per capita wealth of the free population was \$170.92. Buildings and real estate had an estimated value of 347 millions of dollars, the slaves were valued at 104 millions, and all other property at 100 millions. The South with its plantations and its slaves was the richest section of the country, with a per capita wealth of \$217.07. The per capita wealth of the Middle States was \$145.41, and New England, with its farms and its fisheries and per capita wealth of \$137.98, was the poorest section of the country.

On the ground that they possessed larger property rights, due to their ownership of slaves, the Southern States in the Constitutional Convention of 1787 demanded representation according to their free population and three-fifths of the number of their slaves. Thus did Southern statesmanship establish the political rights of property, and not till the Emancipation Proclamation declared the negro no longer property, and four years of terrible warfare settled slavery and secession, did "this interest" cease to participate in politics.

On June 1, 1900, this country could boast of 5,739,657

farms, valued at \$16,674,690,247, with farm implements and machinery worth \$761,261,550. There were over ten million people engaged in agricultural pursuits, not 90 per cent of the population as in the days following the Revolution, but running as high as 76 per cent in Mississippi, down to 5½ per cent in Massachusetts; and yet, although there is no longer any slave labor on our plantations, only free labor on all of our farms, does any one believe that this sixteen billions of dollars' worth of property and ten millions of inhabitants will not make their influence felt in politics whenever their welfare is assailed? Did not Senators Dilliver, Cummins, Bristow, and McCumber defend the agricultural interests in the Congress of 1909 with as much energy and success as the delegates of the South defended their interests in the Constitutional Convention of 1787?

#### DIVERSITY OF INDUSTRY DESIRED.

The founders of the American nation were not content to have this country devote almost its entire attention to agriculture, and early efforts were made to encourage a diversity of industry. A few prominent leaders, among them Thomas Jefferson, strongly opposed this effort, claiming that the building up of manufacturing towns would result in a deterioration of the health and morals of the people. The proponents of diversified industry won their point and the first tariff bill passed by Congress pledged the Government to encourage manufactures. This legislation for the establishment of manufactures could find many precedents abroad for Government encouragement of industry, and was in line with numerous attempts by the American Colonies to accomplish the same object. In 1640 the General Court of Massachusetts, for the encouragement of manufactures, offered a bounty of three pence on every shilling's worth of cotton, linen, and woollen cloth; and in 1645 it passed an order to encourage the establishment of sheep as a foundation for woollen manufacturing, and eleven years later, to develop facility in spinning, it was ordered that all hands not necessarily employed on other occasions, both women and



girls and boys, should spin for thirty weeks every year three pounds per week of linen, cotton or wool. The Assembly of Virginia enacted in 1662 a law offering ten pounds of tobacco for every good wool or fur hat made in the colony, and Delaware in 1753 offered a prize of forty shillings for the best hat manufactured in the lower counties. In 1751 the General Assembly of Rhode Island granted a bounty of one-third its appraised value for cloth manufactured from wool or flax. As a result of these efforts the household manufacture of cotton, linen, and woolen goods developed to such an extent that practically the entire needs of the population for cloth for ordinary wear were supplied by home manufacture, but as yet little had been done toward the establishment of factory manufacture, the Federal Census of 1800 mentioning only three woolen factories whose total product was valued at only \$75,000.

The embargo of 1807, the non-intercourse act of 1809, and the War of 1812 gave a great impetus to manufacturing; foreign goods were excluded and many grasped the opportunity to establish factories. From this foundation were developed the mighty manufacturing interests of to-day. It is the extraordinary industrial development of the New England and Middle States during the last century which accounts for the great wealth which they have acquired. During this period there was an increase in population of 14 per cent, a larger increase than in any other nation, and yet the increase in wealth far outstripped that of population. The wealth of the country was greater by ninety-fold in 1900 than it was in 1790. The per capita value of farm property increased from \$202.90 in 1850 to \$305.94 in 1900; but the per capita value of manufactured products increased in the same time from \$52.12 to \$194.73. In New England and the Middle States there was a marked falling off in the per capita value of farm property, from \$199.58 in 1850 to \$143.87 in 1900, while the value of manufactured products increased from \$84.29 in 1850 to \$314.71 in 1900. In the Southern States, which had the highest value in farm property, the per capita value of such property, from 1850 to 1900, declined eight

dollars, while the per capita value of manufactured products increased seventy dollars.

The valuation of factory land and buildings in 1900 had increased to \$2,476,772,062. The value of manufactured products that year reached the vast total of \$6,087,151,108, nearly five times the value of our agricultural products. From 1900 to 1904 the value of farm products increased \$445,000,000. The value of manufactured products increased during the same time, \$1,320,000,000. In 1900 there were used on our farms implements and machinery valued at \$749,775,970; in manufacturing establishments there were used machinery, tools, and implements valued at \$2,541,046,-639. Four years later manufacturing machinery, tools, etc., had increased nearly one billion in value, while the increase in the value of farm machinery and implements was ninety-five millions. In 1905 the combined manufacturing interests reported a total capital of over twelve billions, nearly five and a half millions of wage-earners, earning in wages over two and a half billions of dollars and producing products to the value of \$14,802,147,087. By capitalization the leading manufacturing interests were foundry and machine shops; iron and steel; cotton goods, lumber and timber products and wool manufactures.

#### THE STATES AND THEIR INTERESTS.

The following table of States with their capital invested in manufacturing, their wage-earners, wages and value of products, and the leading industries of each State, clearly indicates the diversity of industry and the nation-wide development of manufacturing:

# 368 NATIONAL ASSOCIATION OF WOOL MANUFACTURERS.

TABLE OF STATES.

State.	Capital.	Wage-Earners.	Wages.	Value of Products.
ALABAMA . . . . .	\$105,382,859	62,173	\$21,878,451	\$109,169,922
Iron and steel . . . . .	35,742,588	13,528	5,753,566	34,052,898
Textiles . . . . .	26,046,729	12,518	2,675,332	18,073,790
Lumber and its remanufactures, . . . . .	14,786,950	17,091	5,803,708	19,111,549
ARKANSAS . . . . .	46,306,116	33,089	14,543,635	53,864,394
Lumber, etc. . . . .	31,270,247	25,305	10,800,492	34,052,755
Chemicals and allied products, . . . . .	5,605,167	1,061	385,928	5,389,763
Food products . . . . .	1,931,578	762	268,265	5,037,615
CALIFORNIA . . . . .	282,647,201	100,355	64,656,686	367,218,494
Chemicals, etc. . . . .	57,423,078	4,609	3,052,919	29,012,729
Food products . . . . .	51,610,911	6,441	8,708,877	116,022,535
Lumber, etc. . . . .	41,954,005	21,169	14,400,363	40,465,669
Textiles . . . . .	8,414,746	6,441	2,730,172	14,756,075
COLORADO . . . . .	107,663,500	21,813	15,100,365	100,143,999
Iron and steel . . . . .	30,504,455	3,405	2,097,662	13,238,684
Food products . . . . .	21,833,157	3,015	1,968,349	22,392,929
CONNECTICUT . . . . .	373,283,580	181,605	87,942,628	369,082,091
Iron and steel . . . . .	96,482,078	47,004	24,647,590	71,293,742
Textiles . . . . .	87,791,272	47,505	18,431,226	79,125,869
Metal products . . . . .	73,526,196	33,758	17,382,508	85,546,354
DELAWARE . . . . .	50,925,630	18,475	8,158,203	41,160,276
Iron and steel . . . . .	13,461,836	3,392	1,599,715	6,059,988
Leather and finished products, . . . . .	6,799,194	2,909	1,205,503	10,438,297
Textiles . . . . .	2,454,252	2,221	701,914	2,919,821
FLORIDA . . . . .	32,971,982	42,091	15,767,182	50,298,290
Lumber, etc. . . . .	13,216,915	12,060	4,373,605	13,539,934
Tobacco . . . . .	7,391,463	9,658	5,577,426	16,766,476
Chemicals, etc. . . . .	5,985,389	16,071	3,881,976	12,716,885
GEORGIA . . . . .	135,211,551	92,749	27,392,442	151,040,455
Textiles . . . . .	47,067,414	28,725	6,292,703	42,296,733
Chemicals, etc. . . . .	32,476,583	17,125	4,544,611	34,210,073
Lumber, etc. . . . .	18,090,303	22,242	7,085,325	25,160,253
IDAHO . . . . .	9,689,445	3,061	2,059,391	8,768,743
Food products . . . . .	4,318,111	304	218,439	3,013,588
Lumber, etc. . . . .	3,516,425	1,449	875,932	3,142,423
ILLINOIS . . . . .	975,844,799	379,436	208,405,468	1,410,342,129
Iron and steel . . . . .	178,942,578	72,299	43,449,817	218,361,724
Food products . . . . .	149,855,373	49,204	25,436,322	459,096,503
Chemicals, etc. . . . .	139,731,440	11,931	6,363,338	78,106,869
Textiles . . . . .	43,026,970	40,376	18,169,835	103,070,393
INDIANA . . . . .	312,071,234	154,174	72,058,099	393,954,405
Iron and steel . . . . .	57,583,261	24,653	12,738,644	56,121,823
Vehicles . . . . .	37,931,207	25,002	13,356,473	45,848,471
Chemicals, etc. . . . .	37,824,040	5,151	2,915,966	34,633,337
Textiles . . . . .	11,303,019	11,192	3,147,605	16,805,282
IOWA . . . . .	111,427,429	49,481	22,997,053	160,572,313
Food products . . . . .	27,897,602	9,964	4,153,405	79,696,294
Lumber, etc. . . . .	17,210,662	6,851	3,144,073	16,375,950
Textiles . . . . .	3,213,554	2,361	718,732	4,031,180
KANSAS . . . . .	88,680,117	35,570	18,883,071	198,244,992
Food products . . . . .	42,922,167	12,723	6,503,635	145,750,702
Metal products . . . . .	11,973,455	2,764	1,711,211	12,180,756
Clay, glass, and stone products, . . . . .	8,938,947	3,795	1,966,933	5,376,265
KENTUCKY . . . . .	147,282,478	59,794	24,428,684	159,753,968
Lumber, etc. . . . .	20,578,321	15,632	6,089,246	26,653,088
Tobacco . . . . .	22,691,157	3,969	1,225,886	14,913,049
Textiles . . . . .	10,540,916	7,187	2,017,851	11,501,093

TABLE OF STATES. — *Continued.*

State.	Capital.	Wage-Earners.	Wages.	Value of Products.
LOUISIANA . . . . .	\$150,810,608	55,859	\$25,315,750	\$186,379,592
Food products . . . . .	64,655,968	8,823	4,358,784	95,862,974
Lumber, etc. . . . .	41,901,175	29,429	13,481,440	41,591,778
Chemicals, etc. . . . .	15,275,034	2,947	1,087,939	17,309,847
Textiles . . . . .	4,741,359	3,081	740,397	8,208,941
MAINE . . . . .	143,707,750	74,958	32,691,759	144,020,197
Textiles . . . . .	42,289,571	24,270	8,571,738	37,064,835
Paper and printing . . . . .	45,530,675	10,240	5,172,441	28,979,902
Lumber, etc. . . . .	20,850,515	15,973	7,135,061	24,514,179
MARYLAND . . . . .	201,877,966	94,174	36,144,244	243,375,996
Textiles . . . . .	26,602,612	24,124	6,897,322	41,800,879
Food products . . . . .	15,129,161	13,308	3,484,549	37,063,850
Metal products . . . . .	20,013,717	4,977	2,086,509	36,368,604
MASSACHUSETTS . . . . .	965,948,887	488,399	232,388,946	1,124,092,051
Textiles . . . . .	368,370,021	183,238	70,587,609	333,304,585
Iron and steel . . . . .	125,277,846	57,142	32,630,404	106,578,484
Leather, etc. . . . .	89,397,654	80,795	41,441,593	210,930,541
MICHIGAN . . . . .	337,594,102	175,229	81,278,837	429,120,060
Lumber, etc. . . . .	74,258,813	55,953	25,362,078	89,012,348
Chemicals, etc. . . . .	55,366,200	10,072	4,753,960	36,039,464
Food products . . . . .	34,222,711	10,461	4,416,736	67,495,082
Iron and steel . . . . .	38,706,287	24,765	12,965,852	51,207,629
Textiles . . . . .	11,140,908	11,688	3,629,088	18,917,501
MINNESOTA . . . . .	184,903,271	69,636	35,843,145	307,858,073
Food products . . . . .	48,111,994	9,840	5,319,980	165,120,192
Lumber, etc. . . . .	39,764,530	23,341	11,697,174	47,894,699
Textiles . . . . .	6,065,716	4,179	1,408,610	10,834,247
MISSISSIPPI . . . . .	50,256,209	38,690	14,819,034	57,451,445
Lumber, etc. . . . .	25,399,926	22,902	9,398,992	26,795,080
Chemicals, etc. . . . .	10,580,147	5,564	1,582,093	16,252,983
Textiles . . . . .	6,564,536	3,826	800,117	4,209,605
MISSOURI . . . . .	379,368,827	133,167	66,644,126	439,548,957
Food products . . . . .	47,796,051	14,358	6,696,349	129,992,910
Vehicles . . . . .	21,815,125	15,952	9,526,181	34,500,224
Textiles . . . . .	18,234,154	10,930	3,855,040	25,480,441
MONTANA . . . . .	52,589,810	8,957	8,652,217	66,415,452
Lumber, etc. . . . .	4,880,554	2,226	1,517,511	3,142,493
Food products . . . . .	1,646,471	282	197,125	3,422,911
NEBRASKA . . . . .	80,235,310	20,260	11,022,149	154,918,220
Food products . . . . .	33,883,296	8,045	4,336,092	90,272,059
Metal products . . . . .	17,030,627	495	336,588	35,892,994
Vehicles . . . . .	6,283,286	3,461	2,221,819	4,772,836
Textiles . . . . .	1,121,341	1,059	339,709	2,928,744
NEVADA . . . . .	2,891,997	802	693,407	3,096,274
(Food products and lumber lead.)				
NEW HAMPSHIRE . . . . .	109,495,072	65,366	27,693,203	123,610,904
Textiles . . . . .	50,850,556	31,017	11,796,021	50,714,083
Leather, etc. . . . .	11,622,124	11,975	5,033,229	26,458,136
Lumber, etc. . . . .	11,501,013	8,885	3,870,833	14,403,285
NEW JERSEY . . . . .	715,060,174	266,336	128,168,801	774,369,025
Textiles . . . . .	110,045,206	76,478	29,470,720	127,512,957
Iron and steel . . . . .	140,039,570	50,017	27,933,953	110,157,258
Chemicals, etc. . . . .	135,872,423	16,300	8,683,726	113,079,257
NEW MEXICO . . . . .	4,638,248	3,478	2,153,068	5,705,880
(Lumber, vehicles, and food products lead.)				

## 370 NATIONAL ASSOCIATION OF WOOL MANUFACTURERS.

TABLE OF STATES. — *Continued.*

State.	Capital.	Wage-Earners.	Wages.	Value of Products.
NEW YORK . . . . .	\$2,031,459,515	856,947	\$430,014,851	\$2,488,345,579
Textiles . . . . .	296,809,480	265,605	113,915,102	592,071,319
Iron and steel . . . . .	267,833,582	94,075	55,135,750	214,650,381
Chemicals, etc. . . . .	360,521,824	32,509	17,412,255	205,238,652
NORTH CAROLINA . . . . .	141,000,639	85,339	21,375,294	142,520,776
Textiles . . . . .	63,306,018	42,342	8,731,784	54,882,408
Lumber, etc. . . . .	17,378,096	23,068	6,661,433	26,669,942
Tobacco . . . . .	36,076,997	7,293	1,457,379	28,087,969
NORTH DAKOTA . . . . .	5,703,837	1,755	1,031,307	10,217,914
(Food products, paper, stone products and textiles lead.)				
OHIO . . . . .	856,988,830	364,298	182,429,425	960,811,857
Iron and steel . . . . .	295,002,309	111,093	63,614,008	308,974,046
(Food products, lumber and its remanufactures, chemicals, vehicles and textiles follow.)				
OREGON . . . . .	44,023,548	18,523	11,443,512	55,525,123
(Lumber, etc., food products, paper and textiles lead.)				
PENNSYLVANIA . . . . .	1,995,836,988	763,282	367,960,890	1,955,551,332
Iron and steel . . . . .	761,807,498	234,367	131,957,478	708,760,252
Textiles . . . . .	209,892,681	155,206	53,111,283	268,449,297
RHODE ISLAND . . . . .	215,901,375	97,318	43,112,637	202,109,583
Textiles . . . . .	116,345,673	57,717	22,499,611	105,015,927
Iron and steel . . . . .	37,509,386	12,822	6,774,310	22,013,533
SOUTH CAROLINA . . . . .	113,422,224	59,441	13,868,950	79,378,262
Textiles . . . . .	84,337,333	39,026	8,069,878	51,341,689
(Chemicals and lumber follow.)				
SOUTH DAKOTA . . . . .	7,585,142	2,492	1,421,680	13,085,333
(Food products, paper, liquors, and beverages lead.)				
TENNESSEE . . . . .	102,439,481	60,572	22,805,628	137,960,476
Lumber, etc. . . . .	25,278,005	21,614	8,032,462	33,176,373
Food products . . . . .	9,933,402	3,280	1,164,511	32,077,927
Textiles . . . . .	10,618,517	8,033	1,759,983	11,715,603
TEXAS . . . . .	115,664,871	49,066	24,468,942	150,528,389
(Lumber and its remanufactures, food products and chemicals lead.)				
UTAH . . . . .	26,004,011	8,052	5,157,400	38,926,464
(Metal products, food products, paper and textiles lead.)				
VERMONT . . . . .	62,658,741	33,106	15,221,059	63,083,611
Stone products . . . . .	15,066,680	8,444	4,595,215	10,057,664
Lumber, etc. . . . .	10,447,550	7,791	3,162,298	12,212,840
Textiles . . . . .	11,791,241	6,078	2,134,620	10,537,261
VIRGINIA . . . . .	147,989,182	80,285	27,943,058	14,856,525
(Tobacco, food products, iron and steel and textiles lead.)				
WASHINGTON . . . . .	96,952,621	45,199	30,087,287	128,821,667
(Lumber and its remanufactures, food products and metal products lead.)				
WEST VIRGINIA . . . . .	86,820,823	43,758	21,153,042	99,040,676
(Lumber and its remanufactures, iron and steel, and stone products lead.)				



TABLE OF STATES. — *Concluded.*

State.	Capital.	Wage-Earners.	Wages.	Value of Products.
WISCONSIN . . . . .	\$412,647,051	151,391	\$71,471,805	\$411,139,681
Lumber, etc. . . . .	68,019,353	47,102	21,630,897	75,742,403
Iron and steel . . . . .	58,407,933	19,600	10,858,809	45,347,612
Food products . . . . .	32,314,281	10,114	4,648,189	90,175,541
WYOMING . . . . .	2,695,889	1,834	1,261,122	3,523,260
(Vehicles and lumber and its remanufactures lead.)				
TOTAL FOR THE UNITED STATES,	\$12,686,265,673	5,470,321	\$2,611,540,532	\$14,802,147,087

## FACTORIES IN EVERY STATE.

These are impressive figures to have been reached in but little over a century since the Government determined to enter upon a policy of promoting and encouraging manufactures. The manufacturing interests penetrate every State and territory, the value of manufacturing products ranging from three millions in Nevada and Wyoming to one billion one hundred millions in Massachusetts; one billion four hundred millions in Illinois; one billion nine hundred millions in Pennsylvania, and two billions four hundred millions in New York.

Even in the Southern States, where agriculture long absorbed the energies of 90 per cent of the people, the manufacturing interests have grown to large proportions as the value of their finished products shows, being over 150 millions in Texas, Georgia, and Kentucky; over 186 millions in Louisiana, and nearly 440 millions in Missouri. Less than 10 per cent of the wage-earning population in New Jersey, Rhode Island, and Massachusetts are supported by agricultural pursuits. In Delaware, Pennsylvania, New York, New Jersey, New Hampshire, Connecticut, Massachusetts, and Rhode Island from 30 to 52 per cent of the wage-earners are employed in manufacturing pursuits.

Ranked by the number of employees, the textile industries, according to the census report of 1905, with their 1,156,305 wage-earners come first, with iron and steel plants second.

Ranked by value of their products, the industries supplying food come first, with a value of product amounting to \$2,845,234,900; iron and steel come second with \$2,176,739,726, and the textiles third, with a product valued at \$2,147,441,418. Ranked by capital, the iron and steel industries, with a capital of \$2,331,498,157, would come first; textiles with \$1,744,169,234 second, and food and kindred products with \$1,173,151,276 third.

Any industry with 100 millions or more of capital has reached, presumably, a position of sufficient importance to be considered "an interest." Below is given a list of such industries, all of which had in 1905 a capital of \$100,000,000 or over. There is also given the number of States in which each industry has achieved a position of importance, the number of wage-earners, the amount of wages, and the value of the products. The value of the products indicates, roughly, the capital of the industry, in some cases the value of the products being somewhat in excess of the capital, in others somewhat less than the capital.

## MANUFACTURING INTERESTS WITH OVER \$100,000,000 CAPITAL.

Industry.	Number of States and Territories.	Wage- Earners.	Wages.	Value of Products.
Agricultural implements .	28	47,394	\$25,002,650	\$112,007,344
Boots and shoes .....	30	149,924	69,059,680	320,107,458
Bread and bakery .....	51	81,284	43,179,822	269,609,433
Brick and tile .....	50	66,021	28,646,005	71,152,062
Carriages and wagons ....	45	60,722	30,878,229	125,332,976
Car construction, R.R. ....	49	236,900	142,188,336	309,863,499
Clothing, men's .....	35	137,190	57,225,506	355,796,571
Cotton goods .....	24	310,358	94,366,696	442,451,218
Electric machinery and supplies .....	20	60,466	31,841,521	140,809,369
Flour and grist mills .....	50	39,110	19,882,196	713,033,395
Foundry and machine shops .....	49	348,380	196,247,431	685,901,388
Furniture .....	37	110,133	49,883,235	170,446,825
Hosiery and knit goods ..	26	103,715	31,536,024	136,558,139
Blast furnaces .....	12	35,078	13,934,513	231,822,707
Iron and steel works and rolling mills .....	19	207,562	122,491,993	673,956,026
Leather .....	31	57,239	27,049,152	252,620,986
Liquors .....	38	48,139	34,542,897	298,356,732
Lumber and timber .....	48	404,626	183,021,519	580,022,690
Lumber, planing mills ...	49	97,674	50,713,607	247,441,956
Paper and wood pulp .....	23	65,964	32,019,212	188,715,189
Pottery .....	33	52,428	25,177,665	64,200,792
Printing, book and job...	49	87,764	48,720,854	182,611,720
Printing, news and peri- odical .....	52	96,868	59,830,768	309,327,606
Shipbuilding, iron and wood .....	33	50,754	29,241,087	82,769,239
Silk and silk goods .....	11	79,601	26,767,943	133,288,072
Slaughtering and packing,	31	69,593	37,090,399	801,757,137
Sugar and molasses refin- ing .....	15	13,549	7,575,650	277,285,449
Tobacco, smoking and chewing .....	18	23,990	6,775,325	116,767,630
Tobacco, cigars and ciga- rettes .....	51	135,418	55,864,979	214,350,051
Woolen goods .....	29	72,747	28,827,556	142,196,658
Worsted goods .....	10	69,251	26,269,787	165,745,052

The development of the automobile business since the census of 1905 would place this industry, with its 200,000 employees and its capital of \$400,000,000 invested in the manufacture of automobiles and accessories, far up among "the interests." The growth of other industries, such as the manufacture of cement, chemicals, coke, cotton-seed oil, the

dyeing and finishing of textiles, paints, smelting and refining, structural steel and iron, and tinware, has probably been sufficient to place these industries in the class of those employing one hundred millions or over of capital.

#### THE MINING INTERESTS.

A special census report of 1902 gave the number of mines, quarries, and oil wells as 151,516; the number of wage-earners, 581,728, the wages paid, \$369,959,960, and the value of products, \$796,826,417. There were mined nearly \$300,000,000 worth of bituminous coal, \$90,000,000 of gold and silver, and over \$50,000,000 each of anthracite coal, petroleum, iron ore, and copper. Pennsylvania led the States in mineral products, with a production valued at nearly two hundred and forty millions, or four times more than Ohio, its nearest competitor. Michigan came next, with fifty millions of mineral products and was followed by West Virginia, Colorado, Illinois, California, Montana, Indiana, Minnesota, and Missouri, whose production ranged in value from forty millions to twenty millions. All of the States and territories except Mississippi and the District of Columbia had mineral products of some kind and value, ranging from \$240,000,000 in Pennsylvania to less than one million in Delaware, Louisiana, Nebraska, North Carolina, North Dakota, Rhode Island, and Oklahoma.

#### TRANSPORTATION INTERESTS.

The railroads of the United States, according to Poor's Manual for 1910, were capitalized for \$7,760,610,909, and had a bonded debt of \$8,848,285,216. The cost of the railroads and their equipment was placed at \$13,969,191,621 and the total traffic earnings at \$2,513,212,763. The total number of officers and employees for 1908 was 1,458,244. The pay per day ranged from \$1.45 for trackmen, to an average of \$12.75 for general officers. The contribution of the railroads toward the sum of wages and salaries earned in the United States was at the rate of over \$3,000,000 per day.

We have 231,150 miles of railroad lines, almost as much as all of Europe and Asia. The par value of our railroad securities in 1900 was more than ten times as great as the total valuation of the thirteen Colonies in 1790.

The street railways, with about thirty thousand miles of track; with an equipment costing over two billions; with over two hundred thousand employees and wages of nearly one hundred and fifty millions are "an interest" of considerable magnitude.

According to a census report of 1906 on Transportation by Water, we were credited with 37,321 vessels, valued at \$507,973,121. On the Atlantic coast there was shipping valued at \$275,000,000; on the Great Lakes and St. Lawrence River, \$130,000,000; on the Pacific coast, \$75,000,000, and on the Mississippi and its tributaries \$25,000,000. The gross income of this fleet of vessels was \$294,854,532. The number of employees was 140,929 and the wages amounted to \$71,636,521.

Although this article does not by any means pretend to enumerate all of "the interests," brief mention should be made of one "interest" which is constantly making its influence felt. The labor interest must be considered by every political party. No leader has yet appeared who dares to say to organized labor, "You must not participate in politics." Statistics of labor organizations are not presented in complete form. The paid-up membership of the American Federation of Labor in 1908 was 1,586,885, not very much greater than the whole number of wage-earners in the combined textile industries. But besides this organization there are six railroad unions, the Western Federation of Miners and the Knights of Labor, and several others, so organized labor assumes the proportions of a formidable "interest." To carry out the objects for which trade unions were established and to modify some conditions to which objection is taken, here, at least, is "an interest" which will insist upon participation in politics and persist in efforts to accomplish desired legislation.

It is inconceivable that organizations and industries of



such magnitude will look on complacently when changes in economic conditions or tariff laws are proposed by political leaders or enthusiastic reformers. These "interests" have become established under conditions specifically designed by the Government to accomplish such a development, and participation in politics whenever it is proposed to modify these conditions is inevitable.

Corruption in politics is a different issue. It is the rights of property which we are considering. Under the Constitution they are as inviolable as life and liberty. The same Constitution that empowers the Government "to levy and collect taxes, duties, imposts and excises" also guarantees that "the right of the citizens of the United States to vote shall not be denied or abridged." Possessing the inalienable right of suffrage, how can citizens of the United States be prevented from participating in politics, voting for candidates and policies, doing what they honestly and honorably can to shape legislation, whenever their "interests" are assailed, for after all "the interests" are owned by our citizens, and, as the property of our citizens, will be defended by all of the means guaranteed by the Constitution, not the least of which is the right to vote, or, in other words, to participate in politics.

THOMAS O. MARVIN.

## THE NEW AYER MILLS.

DESCRIPTION OF THE LARGE PLANT LATELY OPENED AT  
LAWRENCE FOR HIGH-CLASS WORSTED GOODS.

As an example of the perfection of modern mill construction and equipment in America, the new Ayer Mills of the American Woolen Company at Lawrence, Mass., have aroused deep interest throughout the industry, and are deserving of a careful, detailed description in the pages of the Bulletin. Though not so large as the great Wood Worsted Mills which stand immediately opposite, the Ayer Mills are in themselves a mighty enterprise, and the unusually elaborate and handsome finish of the buildings, crowned by the lofty clock tower, makes the Ayer Mills a conspicuous landmark in the busy, crowded valley of the Merrimac.

The main entrance of the Ayer Mills is on Merrimack Street, and there are other broad exits at South Union Street at the east end of the buildings, and at the west end also. The north side fronts the Merrimac River. The mill group, of which Charles T. Main, of Boston, is the architect and engineer, consists of a main mill No. 1, directly on the river, 594 feet and 6 inches long by 123 feet wide, with a basement, six 16-foot stories and a monitor roof. The walls are of brick, with attractive stone trimmings, and the windows are notably large and numerous, so that light is everywhere obtained. Most of these windows are 8 feet wide, but on the south side of the mill they are 9 feet.

This No. 1 Mill contains in the basement comb foundations and storage room for about 92,000 wool tops. The first floor is devoted to combing, the second to carding, the third to drawing, the fourth to weaving, the fifth to spinning, and the sixth to twisting, reeling, and winding.

No. 2 Mill is 329 feet long and 123 feet wide, with seven 16-foot stories and a monitor roof. This building is of the same general construction as No. 1, but is designed for heavier floor loads. It is located alongside a spur track on Merrimack Street, and is furnished with a shipping platform

whence freight may be handled to the cars at the second floor level. The first floor of the No. 2 Mill is devoted to wool scouring and drying, soap-making and general storage; the third floor to open drawing; the fourth and fifth stories to storage of wool and sorted lots; the sixth floor to wool sorting and the seventh to burling, mending, and dry finishing. No. 1 and No. 2 Mills are connected by two buildings, which are each approximately 40 feet wide and 81 feet long. The easterly connecting building on South Union Street is eight stories high, including basement, and it contains the stair wells for the easterly end of both No. 1 and No. 2 Mills. From the basement a tunnel extends under South Union Street to the basement of the Wood Worsted Mills.

The other connecting building joins the westerly end of No. 2 Mill with the middle of No. 1, and contains stairways and eight large passenger elevators for the use of the operatives. Above the roof level of the mills this building rises in a 40-foot square tower to a dome of striking design, the weather-vane at the top being about 267 feet above the ground. This tower is the characteristic, dominant feature of the whole design. It carries a heavy bell weighing 5,200 pounds, and a great clock with four illuminated dials 22 feet and 6 inches in diameter — the largest striking tower clock in the United States.

South of the easterly end of No. 1 Mill are located the dyehouse and the wet finishing departments. The dyehouse occupies the first floor of a two-story brick building, and covers about 14,000 square feet. The second floor is used for drying, and contains the dyer's office and a motor room. All the machinery in the dyehouse is set over concrete trenches, and the trench design includes closed drains carrying away hot waste water and liquors. The exposed wood-work in the dyehouse is kyanized. A powerful fan installed at one end of the filter room forces warm air through ducts to all parts of the dye-room, this warm air being furnished from above the economizers in the boiler house and being filtered through bags before being delivered to the dyehouse. Ventilating stacks from the ceiling of the dye-room pass through the drying room and the roof, and extend to a



THE AYER MILL.





height sufficient to carry the steam above the walls of the surrounding buildings.

The wet finishing department is in a one-story building placed between No. 1 Mill on the north and the power house on the south, and connected with the dyehouse. It has a pitched roof, with a monitor skylight constructor, and the machine foundations, trenches, and floors are of the same character as in the dyehouse. Two 50,000-gallon wood tanks for warm water are placed on a steel frame above the wet finishing building. This frame supports also a 12,000-gallon wood tank for cold water. These tanks supply the dyehouse, and the wet finishing and wool scouring departments, etc., in No. 2 Mill. A 20,000-gallon water tank is placed within the clock tower.

The power house of the Ayer Mills is in the southwest corner facing Merrimack Street, adjacent to the dyehouse and wet finishing building on the north. There is a railroad siding with coal hopper and crusher on the Merrimack Street side, whence the coal is lifted by a motor-driven bucket elevator, and is distributed by a conveyer to the coal bunkers located directly over the boilers. The floors and sides of these bunkers or pockets are of reinforced concrete, and are of V shape. They are seven in number, six for coal, with a total capacity of about 5,000 tons, and one for ashes, the latter being closed or sealed, so as to act as a separating chamber and storage pocket for ashes coming from a vacuum conveyer.

The boiler house is 245 feet and 2 inches long by 63 feet and 4 inches wide, and is constructed of brick, with stone trimmings, a pitched roof over the coal bunkers and a continuous monitor. Feed, general fire supply and hot water heating pumps are located in the boiler-room basement. Water is supplied through a penstock from a canal in front of the boiler house or from the city service, the feed water in general being taken from a hot well into which the condensers discharge. The chimney stack, square at the base and round above the level of surrounding buildings, has a diameter of 12 feet inside, and rises 250 feet above the level of the boiler-room floor.

The boilers supply steam at 180 pounds pressure to operate

two 2,500-kilowatt horizontal Curtis turbine alternators. The turbine building is 132 feet and 3 inches long by 64 feet wide. All of the floors and roofs of the turbine building, as of the boiler house, are of reinforced concrete on steel work. The electric current is carried by cables through a tunnel to a wire tower in the connecting elevator building, and from this is distributed to all floors of the mills. Hot water heating is to be used throughout the mills, and the power plant and the mills are completely fitted with sprinklers.

The machinery of the Ayer Mills is practically erected and will be in full operation by the New Year. There are 300 looms and 44,500 spindles. The Ayer Mills will make fine worsted yarns and men's wear goods. An impression has prevailed that they were to be simply yarn mills, and were not to make cloth at all, but were to supply yarn in the various mills of the American Woolen Company. But the looms have been installed with the necessary dyeing and finishing departments, and the mills are turning out large quantities of high-grade men's wear fabrics. No cost has been spared in equipping the Ayer Mills. They are supplied with the very latest and most efficient machinery that can be procured. The mills take the raw wool and put it through all the various processes, and the establishment, thoroughly organized and in successful operation, is as admirable a plant as is to be found in all America.

It was on February 19, 1909, that the directors of the American Woolen Company voted to build new mills in Lawrence and name them after Frederick Ayer, the first President of the American Woolen Company. Actual work was begun on the foundations in the following month, with the engineering in charge of Mr. Charles T. Main, of Boston, and the construction of the building in charge of the E. W. Pitman Company of Lawrence. On January 1, 1910, Mr. James Boothman, who had been assistant agent from the beginning, became resident agent of the Ayer Mills. Mr. Boothman has seen the new mills grow from the ground up, and is thoroughly familiar with their capabilities. He has been a practical mill man all his life, and has thorough professional knowledge and experience.



THE AYER MILL — POWER-HOUSE.



President William M. Wood, Mr. Frederick Ayer, and the other officials of the American Woolen Company, with a distinguished gathering of guests, formally started the Ayer Mills on the evening of October 3, 1910, when, at a touch of Mr. Ayer's hand, the great clock, the largest timepiece of its kind in the Western hemisphere, was set in motion. This clock well merits a description by itself. It is the work of the E. Howard Clock Company, and was made on a special design. The clock is the largest ever produced by the company, and is erected on a steel platform in the center of the tower, directly in line with the center of the dials. It has a heavy, double iron bed frame, supported on truss legs, while above are the massive cast-iron frames held together by an iron cap-piece on which is placed a cluster of bevelled wheels, whose shafts revolve once an hour and connect with the dial works gears by means of long steel tubes fitted with devices to compensate for the expansion and contraction of the metals. The clock has a gravity escapement and a two-second length pendulum of steel and zinc tubing, about 15 feet long, with a cast-iron pendulum ball weighing about 270 pounds.

At the opposite end of the clock from the time gearing is the striking mechanism, with electrical connection with the time part. The bell is struck by a cast-iron hammer weighing 120 pounds. The clock works measure 9 feet by 5 feet, stand 3 feet in height and weigh about 4,500 pounds. The driving weights are cast iron, and the clock runs eight days with one winding. An electrical device from the great clock controls a large number of secondary electric clocks that are used about the buildings. The huge dials contain 36,000 pounds of material — iron, lead, glass, etc. — and the hands of the clock are 14 feet long.

This clock tower, standing high above the city of Lawrence and the Merrimac, and visible over the country for miles around, is a noble work of architecture and a fit token of the courage and enterprise of a great wool manufacturing company.



## Obituary.

HENRY G. B. FISHER. (*With portrait.*)

A LEADING citizen and manufacturer of North Adams, Mass., and a loyal member of the National Association of Wool Manufacturers, is lost to the community in the death, Thursday, December 1, 1910, of Henry Green Bronson Fisher.

Mr. Fisher was born in Dedham, Mass., seventy-six years ago. For several generations his ancestors had lived in the Deerfield valley and owned a large amount of land there. He served with honor in the United States Navy during the Civil War and was on the flagship *Minnesota* during the famous battle between the *Merrimac* and the *Monitor*, which revolutionized modern naval warfare. Later he became interested in the wool manufacturing industry and since 1878 has been president of the North Adams Manufacturing Company, which was organized in 1864 as the North Adams Woolen Company. Under his management the mill has increased from nine sets of cards and forty-eight broad and one narrow looms in 1878 to fourteen sets of cards and sixty-two broad and eight narrow looms in 1909.

For some years Mr. Fisher personally looked after the New York end of the business, but since his wife's death, fourteen years ago, he has lived in North Adams. He represented North Adams in the Massachusetts legislature and by his public spirit, his manly qualities and high character he won the esteem of his fellow citizens and the regard and loyalty of his employees. His interest in the principles of the Republican party was manifested by his membership in the Home Market Club, the Republican Club of Massachusetts, and the Republican Club of the city of New York.

Mr. Fisher was married in Paris to the widow of William Blackinton. He leaves a brother, William Fisher, of Boston, a nephew, James F. Fisher, of New York, and two step-daughters, Miss Mary A. and Miss Susan F. Blackinton, who reside in Paris.

## Editorial and Industrial Miscellany.

### THE ELECTIONS OF 1910.

THERE have been worse reverses than that which the dominant political party in America experienced in the late Congressional campaign. The Republicans were far more overwhelmingly defeated in 1890 following the enactment of the McKinley tariff, and the Democrats in 1894 when the verdict of the country was effectively invoked on Gorman-Wilsonism. Mr. Bryan was more decisively beaten in every one of his three efforts to reach the Presidency, and so was Judge Parker in 1904. Nevertheless, the loss of the Governorship in a State like Massachusetts, and the loss besides of Senatorships in Maine, New York, New Jersey, Indiana, and elsewhere, coupled with an overturn from forty-five Republican to more than sixty Democratic majority in the House of Representatives, must be accepted as more significant and threatening than any ordinary pendulum-reverse of an off-year election.

What does all this mean? For sixteen successive years the Republicans have held unbroken control of the National House as well as of the majority of all the States, the National Senate and the National Administration. A part of November's result is undoubtedly attributable to a certain automatic reaction of the public temper, like that which nearly cost the House in 1898. Men grow jealous of another man too often called just, and they grow jealous also of a group of men or a political party flushed with long victory, secure and powerful. As political almanacs might have expressed it, about this time a change of weather was due. But there must have been and were some other and abnormal causes to produce such a violent change, with some of the sweeping characteristics of a cyclone.

We are frank to say that we regard the new tariff as a great factor in the Republican defeat — or, we should hasten to say, not the new tariff as it actually was but as it was represented. In another article the measure is analyzed on the cold exact basis of the official records of a year's experience. These records show beyond all chance of denial or doubt that the Aldrich-

Payne law embodied as a whole a reduction and not an advance in the general range of duties. Yet the bill was widely and bitterly assailed as an increase of protection, as prohibitive protection, and a majority of the American people believed the partisan hysteria of reckless newspapers and magazines rather than the precise reports of the responsible officers of the Government. In other words, ignorant prejudice prevailed for the time being over knowledge, exactly as it did on a similar issue in 1890 and 1892.

It is difficult to be patient in characterizing such a fact. It is difficult in calmer moments to comprehend how so keen and intelligent a race as the American people can be so egregiously humbugged as they were by the tin pedler devices of the McKinley year and the equally erratic and dishonest clamor of the Congressional contest of 1910. Take, for example, the assertions with which the public press was filled just after the enactment of the new tariff in August, 1909, that the "increased duties" of Schedule K were going to cost the American people \$125,000,000 a year in the higher prices of their clothing! The real facts were instantly and widely proclaimed: that there had been no increase whatsoever in a single item of the wool or woollen rates; that there had been no change of classification or any other amendment of Schedule K that could be used as a pretext for increasing prices, and that the only points in which the new schedule differed in the slightest from the former law were in certain small but real reductions. All this was explained, and yet right down to the eve of the late election the country rang with charges that the wool and woollen duties had been "revised" upward and not down.

One potent influence which predisposed the masses of the people to accept falsehoods like this was the undoubted increase that had come of late years in the prices of many necessities of life, notably foodstuffs, on which the protective tariff can have little effect, if any at all. Indeed, in a somewhat broad, general way, it may be said that it was the high prices which defeated the Republican party. As the party long in power it was held responsible for something for which it was not in any large sense responsible and which it could not possibly prevent. This issue of high prices, of excessive cost of living, is full of gunpowder; it is exceedingly dangerous to handle. The Democratic party owes its triumph chiefly to this issue, which is, after all,

essentially a false one. The people who gave the Democracy power on an implied promise of low prices will now demand that the party keep its pledge, which it cannot keep except at the fatal cost of idle native industries, lost employment, or lower wages.

The ablest Democratic leaders recognize this. There is a significant note of soberness, or even fear, tempering the natural exultation at their victory. They realize that the country is in a peculiarly critical, restless mood, and that another tidal wave more mountainous than that which has just swept them in may sweep them out of power in 1912, if they fail to produce the millennium of high wages, low prices, and universal prosperity which they extravagantly promised in the enthusiasm of a winning campaign. It is true that the exuberant Henry Watterson proclaims, as guide, counsellor, and friend of the Democratic Congressional leaders, that they are about to tear down "the robber castle of protectionism." It is true that Champ Clark, the foreordained Speaker of the next House of Representatives, is still willing to stand by his characterization of himself as "a free trader from the crown of my head to the soles of my feet." But these two redoubtable chieftains are of the old guard. They belong to a generation which is destined soon to pass off the scene, and their ablest lieutenants, whatever they may call themselves, are more sober, practical men, and protectionists. The New South will have a larger hand than the Old South in the framing of the next Democratic tariff law.

Moreover, the present political victors have come to Washington with a live and chastening memory of the actual results of the latest Democratic effort for "tariff reform" legislation. The Gorman-Wilson act was not an extreme free trade measure. In fact, it was so little of a free trade measure in its final form that its chief sponsors repudiated it and Mr. Cleveland refused to sign it. Nevertheless, it did go far enough, though not a long way, in the direction of free trade to intensify an existing financial depression into one of the most disastrous panics which the American people have ever known. The Gorman-Wilson bill became a law on August 27, 1894. In the following November an angry nation virtually blotted the Democratic party out of existence except in a few of the former slave States. The Republican party was given control of the House of Representatives by a majority, not of a paltry sixty, but of one hundred

and thirty, and the Democracy passed out into four long Presidential terms of exile in the wilderness.

The American people have not essentially changed since 1894. They are still, by an overwhelming majority, protectionists. They prefer the prosperity of their own country to the prosperity of any other. They have temporarily been led to believe, largely by a high range of prices of some necessities of life for which the tariff is in no important way responsible, that a great many of the existing rates of duty are unnecessary and excessive. But this circumstance, which is after all a difference of opinion over details and not over fundamental principles, does not give the present victorious political party any license to transform the American economic system from a tariff for revenue and protection to a tariff for revenue only.

Many of the new Democratic leaders are distinctively modern men. Improved facilities for communication and the spread of intelligence have brought the American people of all sections of the country much closer together in aspiration and sympathy than they were twenty years ago. Instant and fearful defeat awaits any political party that attempts to build up another tariff ignoring the close interdependence of American industries. Therefore, while the recent Congressional reverse was undeniably a disappointment to American business, it does not involve the abandonment of the protective policy; it may not even involve any serious weakening of that policy. For a year at least there cannot be a pretence of any actual change in the present tariff law; the new Congress with its Democratic House does not come into actual existence until December, 1911. Here is a long respite from legislative attack. American wool manufacturers may well improve it as a season of reasonable activity, and cherish, besides, no very dreadful thoughts of what may follow. Any political party that does not grant fair play to American industry can have no hope of winning the great, critical Presidential election of 1912.

WINTHROP L. MARVIN.



## FIRST YEAR OF THE ALDRICH-PAYNE TARIFF.

A REAL THOUGH NOT A RADICAL REVISION DOWNWARD  
AND AN ADEQUATE REVENUE.

ON August 5, 1910, the new Aldrich-Payne tariff was one year old. It has risen out of the realm of conjecture and controversy into fact, and it is possible now to displace controversy by a precise record of actual achievement.

The Bureau of Statistics of the Department of Commerce and Labor has rendered an important public service by the presentation of a careful analysis of the actual operation of the new tariff during the twelve months from August 1, 1909, to July 30, 1910 — this period includes, of course, the first five days of August, 1909, under the Dingley tariff. Bearing in mind that the Aldrich-Payne law has been denounced as a prohibitive measure, it is illuminating to observe that the total imports for this first year of the new law were \$1,562,620,181, of which \$768,047,321, or 49.15 per cent, entered absolutely free of duty. These total imports were the largest in the history of American commerce, and the value of the free imports was also greater than had ever before been known.

So startling and enlightening are these figures that many newspapers and politicians of the anti-protectionist party have querulously scolded the report of the Bureau of Statistics as "partisan." The figures are the exact, official records of our import commerce, as received at the custom houses and transmitted to Washington. They are as "partisan" as the multiplication table — nothing more. No expressed or implied pledge to reduce the protective tariff was made by the Republican party in the national platform of 1908, on which President Taft and a Republican Congress were elected. The promise of a general or wholesale reduction was read into this platform by those who are hostile to the protective policy. All that the framers of that platform undertook to do was to revise the tariff, — revision not meaning necessarily reduction by authority of any lexicographer, — to examine the tariff in a spirit of entire open-mindedness, cutting down duties that were manifestly superfluous if there were such, and increasing duties that were inadequate. This was the frank interpretation put upon that platform by President Taft himself. There was not one word or syllable in the platform of 1908 which committed the Republican party to reduce by so

much as one per cent any duty required for the protection of American labor or for the purposes of revenue.

Yet that examination of the Dingley tariff which resulted in the Aldrich-Payne law has unquestionably given to the country a reduction of the tariff as a whole. This is no longer a matter of controversy. The official record is now obtainable. There are two ways of measuring the tariff. One is the average ad valorem rate on all imports, free and dutiable alike. This average ad valorem rate on all imports in the first year of the Aldrich-Payne law was 20.98 per cent, the lowest figure for the past twenty years except for the second year of the Gorman-Wilson tariff of 1894-1897, when the average was very slightly lower, or 20.77 per cent, and the closing year of the McKinley tariff of 1890-1894, when — raw sugar being on the free list — the average was 19.11 per cent. Estimated by this standard of the average ad valorem rate of duty on all imports, it is undeniable that the Aldrich-Payne law is in its general character a revision downward.

But there is another standard — that of the average ad valorem rate on dutiable imports. This for the first year of the Aldrich-Payne law was 41.26 per cent. Under the Dingley tariff of 1897-1909, the average ad valorem rate of duty on all imports was 45.76 per cent. Under the McKinley tariff this was 47.7 per cent; under the Gorman-Wilson tariff 42.82 per cent. Here again on this basis of comparison there is proof in the first year's workings of the Aldrich-Payne law of a real, substantial reduction of duties as a whole — the remissions being made where the full rate was regarded as no longer essential to the proper protection of American industry. Very few Americans except those who have had occasion to make a study of national economics are aware that practically one-half in value and probably from 60 to 70 per cent in bulk of all of our imports of merchandise from foreign lands are on the free list, and enter without the payment of a single cent of duty at the custom house.

In the first year of the Aldrich-Payne law, as has been said, 49.15 per cent of our total imports were thus entirely non-dutiable. Under the Dingley tariff the per cent of free imports was 44.31, and under the Gorman-Wilson tariff, 48.82. Such figures as these prompt the inquiry whether the editors and orators who have been superfervidly denouncing the new tariff as a "prohibitory" Chinese wall have ever seen a copy of the

law, or ever once in their lives have glanced at the Federal statistics of Federal commerce. It is a fine tribute to the sagacity of the authors of the new tariff that they were able to increase the free list and to reduce the average ad valorem rate of duty, and at the same time, without injury to American labor, to increase the revenues of the Government. The Aldrich-Payne law in its first year provided an income greater by \$75,000,000 than the sum collected in any other year of our national life, except the year 1907, when the total ordinary receipts were \$663,125,660. For this increase of revenue the new corporation tax was responsible in the sum of \$27,090,934. The new law has put an end to the treasury deficit, transforming this deficit into a surplus of \$20,214,029.

This is the law which the American people are being exhorted to condemn and repeal in favor of another successor to the Gorman-Wilson tariff of sinister memory. One especially savage indictment against the Aldrich-Payne measure has been that its Schedule K was "prohibitive." The full details of our imports for the first year of the Aldrich-Payne law are not yet obtainable, but the Government statistics show that the imports of wool and manufactures of wool entered for consumption rose from \$52,807,241 in the fiscal year ending June 30, 1909, under the Dingley law to \$70,736,936 in the fiscal year ending June 30, 1910, eleven months of which, lacking five days, were under the Aldrich-Payne law. These increased importations were divided between the raw wool and the finished fabrics. They will be analyzed in the next issue of the Bulletin.

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### THE NEW COURT OF CUSTOMS APPEALS.

#### ITS EXACT JURISDICTION—COMPOSITION OF THE COURT AND RULES OF PROCEDURE.

THE Aldrich-Payne tariff act in Section 29 provides for the establishment of a Court of Customs Appeals to have jurisdiction over all cases appealed from the Board of General Appraisers, thereby giving to the Court of Customs Appeals and the Board of General Appraisers complete control of all customs cases affecting the classification of imported merchandise or the tariff duties imposed thereon. Thus is abrogated the jurisdiction of the United States Circuit Court of Appeals in customs cases,

although it is provided in the act that in the event of any one or two judges of the Court of Customs Appeals being incapacitated, the President may designate any qualified United States circuit or district judge to act in the place of the judge of the Customs Court who is unable to perform his duties.

The court consists of a presiding judge and four associate judges appointed by the President and subject to confirmation by the Senate, the salary of each judge to be \$10,000 per annum. The act provides also that there shall be appointed by the President an Assistant Attorney General, at a salary of \$10,000 per annum, and that the Attorney General of the United States shall appoint a Deputy Assistant Attorney General at a salary of \$7,500 per annum, and four attorneys, who shall be paid salaries of \$5,000 per annum each, whose duties it shall be to have charge of the interests of the Government in all matters of reappraisement and classification of imported goods, and of all litigation incident thereto. The Attorney General is also given power to employ and retain such special attorneys and counsel in the conduct of customs cases as he may think necessary to coöperate with the Assistant Attorney General. Provision is made for the appointment of a marshal to render services within the District of Columbia at a salary of \$3,000 per annum, such services outside the District of Columbia to be performed by United States marshals in the districts where the sessions of the court may be held. A clerk, at a salary of \$4,000, is provided for ; an assistant clerk ; five stenographic clerks ; a reporter, and a messenger.

The composition of the court is as follows :

*Presiding Judge :*

HONORABLE ROBERT M. MONTGOMERY.

*Associate Judges :*

HONORABLE WILLIAM H. HUNT,

“ JAMES F. SMITH,

“ ORION M. BARBER,

“ MARION DEVRIES.

*Attorney General :*

HONORABLE GEORGE W. WICKERSHAM.

*Assistant Attorney General :*

HONORABLE D. FRANK LLOYD.

*Clerk :*

ARTHUR B. SHELTON.

*Assistant Clerk :*

CHARLES M. AYER.

*Reporter :*

THOMAS H. CLARK.

*Marshal :*

JOHN R. ELDER.

It is obvious that an elaborate and expensive mechanism is thus provided for the management of customs matters.

The act provides:

If the importer, owner, consignee, or agent of any imported merchandise, or the collector or Secretary of the Treasury, shall be dissatisfied with the decision of the Board of General Appraisers as to the construction of the law and the facts respecting the classification of such merchandise and the rate of duty imposed thereon under such classification, or with any other appealable decision of said board, they, or either of them, may, within sixty days next after the entry of such decree or judgment, and not afterwards, apply to the Court of Customs Appeals for a review of the questions of law and fact involved in such decision: Provided, that in Alaska and in the insular and other outside possessions of the United States ninety days shall be allowed for making such application to the Court of Customs Appeals. Such application shall be made by filing in the office of the clerk of said court a concise statement of errors of law and fact complained of, and a copy of such statement shall be served on the collector, or on the importer, owner, consignee, or agent, as the case may be. Thereupon the court shall immediately order the Board of General Appraisers to transmit to said court the record and evidence taken by them, together with the certified statement of the facts involved in the case and their decision thereon; and all the evidence taken by and before said board shall be competent evidence before said Court of Customs Appeals. The decision of said Court of Customs Appeals shall be final, and such cause shall be remanded to said board of General Appraisers for further proceedings to be taken in pursuance of such determination.

Importers are given the right of correcting their invoices by deducting from the stated value of goods, the present provision being that they may raise and not lower such stated values. A longer time for the taking of appeals from the decisions of the Board of General Appraisers is also granted. Some changes urged by importing interests have not been embodied in the act, chief among them being the fact that no provision is made for allowing a margin for undervaluations without penalty.



The following rules have been adopted by the court to govern its proceedings :

Rule 1 provides that the clerk of the court shall keep his office at Washington, and that he shall not practise either as an attorney or counsellor of the court while acting as clerk. He shall date and file all papers and not permit any original document or exhibit to be taken from the court-room without an order from the court or permission of one of the judges, but the parties interested may have full access to the records and make copies of all papers filed.

Rule 2 declares the parties shall be entitled to be represented in this court by attorneys, but that any attorney who is entitled to practise in the Supreme Court of the United States, or in the Circuit Courts of Appeals or Circuit Courts of the United States, or in the court of last resort of any State or Territory, may be admitted upon filing the prescribed recommendations and taking oath, or upon motion of any attorney of this court.

Rule 3 relates to processes and writs.

Rule 4 provides that any party feeling aggrieved at any decision of the Board of General Appraisers may, within the time fixed, apply for a review of the questions of law and fact included therein.

Rule 5 specifies the methods of filing the statement of errors of law and fact complained of.

Rule 6 declares that upon the filing of such application for review a mandate shall be issued to the Board of General Appraisers, directing the Board to transmit to this court the records, evidence, facts involved and decision thereon, with all samples and exhibits used.

According to Rule 7 all cases shall be placed on the calendar in the order in which they are received, and such cases shall stand for hearing in that order without notice. The hearing of any case, however, may be postponed for good cause shown.

Rule 8 gives directions for the printing of the records and brief, and Rule 9 relates to the sessions of the court.

Rule 10 says that the court shall be open for business on each business day in the year, for the purpose of receiving applications for appeal.

Rule 11 relates to amendments to processes or proceedings.

Rule 12 provides that on final decision the court shall issue its mandate to the Board of General Appraisers for such further proceedings as shall be proper.

According to Rule 13 the fees of the clerk shall be \$6 for each case, and the rule regulates other fees and charges.

Rule 14 specifies that arguments shall be limited to one hour on each side, and that there shall be not more than two counsel on a side.

Below is given a brief biographical sketch of the members of the Court of Customs Appeals:

- ROBERT M. MONTGOMERY**, born Eaton Rapids, Mich., May 12, 1849. Admitted to the bar, 1870; Justice of Supreme Court of Michigan, 1900-1910; appointed Presiding Judge of Customs Court, March, 1910.
- WILLIAM HENRY HUNT**, born New Orleans, November 5, 1857. Honorary A.M., Yale, 1896; Collector of Customs, Montana and Idaho, 1881-1885; Attorney-General of Montana, 1885-1887; Justice of the Supreme Court of Montana, 1894-1900; Governor of Porto Rico, 1901-1904; United States District Judge, District of Montana, 1904-1910; appointed Associate Judge of the Customs Court, January, 1910.
- JAMES FRANCIS SMITH**, born San Francisco, January 28, 1859. Admitted to the bar, January, 1881; served in the Philippines as Colonel of 1st California Regiment, U.S.V., and as deputy provost marshal and collector of customs; promoted to Brigadier-General, U.S.V., March 1, 1899; Associate Justice of the Supreme Court of the Philippine Islands, June 17, 1901; Governor-General of the Philippine Islands, 1906-1909; appointed Associate Judge of the Customs Court, 1910.
- ORION METCALF BARBER**, born Jamaica, Vermont, July 13, 1857. Graduated from the Albany, New York, Law School, 1882; member of Vermont House of Representatives, 1892, and of the Senate, 1894; State Railroad Commissioner, 1894-1896; appointed Associate Judge of the Customs Court, January, 1910.
- MARION DeVRIES**, born near Woodbridge, San Joaquin County, California, August 15, 1865. Received the degree of LL.B. at University of Michigan, 1888; admitted to bar in Michigan and California in 1887; Assistant District-Attorney, San Joaquin County, 1893-1897; member of Congress, 1897-1900; member of Board of United States General Appraisers, 1900-1910; President of the Board, 1906-1910; appointed Associate Judge of the Customs Court, January, 1910.

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### THE TEXTILE INSTITUTE (OF YORKSHIRE, ENGLAND).

IN April last there was organized in Manchester, England, an association of gentlemen interested in the textile industries under the above name, for the purpose as stated of advancing the interests of the textile manufacture, "particularly in its scientific and technical aspects."

"To promote this object," it is said, to quote from its circular, "the Institute shall have power to":

Arrange for the holding of meetings, the reading of papers, and the giving of lectures, with subsequent discussion and publication.

Print and circulate an Official Journal of the Institute. This Journal shall form a systematic and permanent record of papers read at meetings of, or communicated to the Institute. It may also contain abstracts of technically important matter appearing in other publications, abstracts from patent records relating to the textile industry, and such other matter as the Council may decide upon.

Constitute an authority for the determination and recognition of technical and trade standards, usages, terms, definitions, and the like for the textile industry.

Obtain statistical and other information regarding the production and use of raw and manufactured textile material.

Foster the systematic study of problems affecting power supply, lubricating, lighting, heating, drying, humidifying, ventilating, mill construction, and allied subjects in their relation to textile industry.

Promote the perfecting of present methods and the inventing of improved methods and otherwise dealing with problems concerning :

- (1) Growing, obtaining, preparing, and packing raw materials for textiles ;
- (2) Manufacturing yarn and cloth ;
- (3) Bleaching, dyeing, printing, finishing, and other processes relating to textiles ;
- (4) Transportation and application of all textile materials — raw and manufactured.

Encourage by the giving of prizes, scholarships, grants, and other awards, original work and research dealing with :

- (1) Natural and artificial fibrous materials ;
- (2) The constitution, properties, and application of dyes, sizes, and other substances used in, or pertaining to, textile processes generally ;
- (3) Methods of testing textile materials by chemical analysis or by mechanical means ;
- (4) Any other work of a like nature pertaining to the textile industry, and requiring skilled application and study.

Appoint special commissioners to investigate and report upon problems and processes pertaining to the textile industry, and to give remuneration for such services.

Provide facilities for establishing, collecting, maintaining, or preserving such buildings, machinery, records, and other material as the Council may consider of sufficient historical and educational importance.

Acquire and dispose of property for the purposes aforesaid, and do all other such things as in the opinion of the Council shall aid in furthering the object of the Institute.

The officers of the Institute are : President, Lord Rotherham,

and Vice-Presidents, Sir W. E. B. Priestley for the Worsted Section, and Sir Mark Oldroyd for the Woolen Section.

The autumnal meeting, which was the first meeting of the Institute since its inauguration, was held in Bradford, September 8, 9, and 10, and appears to have been highly successful. Addresses were made by the President and other distinguished gentlemen at a reception given by the Lord Mayor of Bradford in the Town Hall.

The opening address to the Institute by Lord Rotherham (Sir W. H. Holland) is very interesting and to the point, and would well warrant reproduction in full if our space allowed it. As it is a few quotations must suffice. He said :

The impelling motive which animated them all was contained in the question — How best can we increase the efficiency of the various textile trades in which we are interested ? The value of the new Institute had yet to be proved, and whether or not it vindicated its formation would depend largely upon the members. The issues at stake in connection with the textile industries were so vast that they could not afford any longer to confine themselves to what might be described as an individualistic path. They must compare ideas among themselves and in that way help and stimulate each other. The interests of the textile trades as represented there were simply gigantic. The census of production tables showed that in cotton, wool, worsted, jute, linen, hemp, silk, lace, hosiery, bleaching, dyeing, and printing, the united value of the annual production was some 320 millions sterling. In the year 1907 the textile imports amounted to as much as 170 millions sterling, while the returns showed that the number of employees engaged in the various textile trades was no fewer than 1,200,000. If they multiplied that figure with the number of dependents on the employees it would be found that a very substantial fraction of the whole population was directly dependent on the textile trades. It might well be a matter of surprise, therefore, that an industry of such vast importance had not had its institute long ago. For the lack of it he believed that the industry had suffered. Most of the other leading industries had had their institutes for a long time, and those organizations had come to be regarded by the trades interested as almost indispensable.

The Institute, he took it, was not to supersede or diminish the splendid qualities of self-reliance and individual effort on which the great fabric of our prosperity had been built up, but on the contrary, its aim was to encourage those qualities by adding greatly to their effectiveness. There were many subjects of interest to the various branches of the textile industry ; such subjects, for instance, as building construction, provision of



motive power, ventilation, humidification, lighting, heating, questions of finance, and questions relating to the cost of transit. These were subjects of common interest to all branches of the textile trade, but there was, in addition, another class of subject which could only be usefully discussed by the various sections into which the Institute had been formed — questions relating to the supplies of raw material, economies in production, inventions, trade customs, new markets for the manufactures, and the effect of new tariffs. These subjects would provide ample work for the Institute, in the prosecution of which there would be no need, so far as he could judge, for any overlapping of the useful work being done by Chambers of Commerce.

He was followed by Mr. Frank Warner, of London, who spoke of "Technical Instruction and its Relation to the Textile Industries," and said in the course of his remarks :

Whilst we have a commercial branch of the Foreign Office, and a commercial branch of the Board of Trade, we have at the Board of Education no department which in any sense could be recognized as having the interests of the education of business people at heart. We must, therefore, have reform at headquarters, reform that is long overdue and of urgent necessity, reform in the shape of the creation of a department, call it a "commercial" or an "industrial, art and technical" department, I do not mind which, controlled by a council composed of the captains of industry in all branches of manufacture and commerce — artists, designers, and educationists who could deal directly with our art and technical schools and the administration of the public funds set aside for their maintenance.

The equipment of the schools is another matter which is urgently in need of reform. In spite of the fact that there are several excellent schools in the textile centers, such as Manchester, Bradford, Leeds, and Macclesfield, no one connected with them will say that they are as replete with up-to-date machinery and laboratories as they should be — surely, in the name of common sense, they ought to be. And if the equipment of our schools falls short of our requirements, art training in design is in a far worse state, and stands out as our weakest spot.

A valuable paper on "Gas Power and the Use of Producer Gas in Textile Mills" was contributed by Mr. T. R. Wollaston, of Manchester, which led to a discussion of the relative merits of gas, steam and steam turbine engines. Other papers were presented on various topics such as "Fuller's Earth," by L. G. Hill; "The Progress and Hindrances of the Wool Industries," by F. J. Smith, who spoke of the special merits of the Heilman



comb; and Mr. John Horner, who spoke on "The Dawn of Flax Spinning Machinery." The reports which come to hand of these papers show them all to be meritorious and informing.

The purposes of the Institute are in many respects in accord with much of the work of this Association, whose quarterly Bulletin, which completes its fortieth volume with the present number, contains the largest amount of valuable information on matters relating to the wool manufacture to be found in any one publication.

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### THE PASTURAGE SYSTEM FOR HANDLING RANGE SHEEP.

UNDER the above title the United States Department of Agriculture has issued<sup>1</sup> a valuable report of an investigation "to determine the efficiency of the pasturage system of handling sheep, with a view to the best utilization of grazing lands." The work was carried on mainly in the coyote-proof pasture at Billy Meadows, Wallowa National Forest, Oregon.

The report is of great interest and furnishes much valuable information concerning the merits of the pasturage system as compared with the unobstructed and undefended range method. As it occupies forty pages, with illustrations and tables, it is too lengthy for reproduction in these pages.

A few extracts covering some of the salient points are given for the purpose of calling the attention of those interested to the report. The period covered by the experiment extended from June 22 to September 29, 1909.

In order to handle a band of ewes and lambs under the pasturage system in a way best both for the forage crop and for the sheep it is essential to know: First, the extent to which the ewes and their lambs will naturally be separated from each other and remain apart; second, to what extent the ewes and their lambs may separate and remain apart without retarding the growth of the lambs, or without loss of ewes from inflammation of the udder, caused by an excess of milk; and third, to what extent they should remain in small bunches in order to secure the best utilization of the forage crop.

During most of the time for the first twenty days after the sheep were turned loose in the pasture they were in one band.

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<sup>1</sup> Forest Service, Circular 178, July 9, 1910.

They would scatter widely and occasionally separate into two or three bunches for a short time during the day, but toward evening they would invariably work together. Except on two occasions they were together on the bed ground at night. This action, no doubt, was in part due to the fact that there was no heavy timber grazing during the period, but in greater degree to the tendency of each ewe to look after her lamb, and to the fact that the band had not yet outgrown the habits acquired while herded. As the season advanced the actions of the sheep were characterized by greater freedom. The number of bunches was from 1 to 8, the number of sheep in each bunch varying from 10 to 2,040 head.

After the first month the sheep were constantly coming together and separating again, the size of bunches varying with each separation. They were seldom in one band for any length of time. As soon as the lambs had been suckled they were content to wander off again. During the last six weeks of the test the ewes and lambs cared very little whether they were together or not. The band was usually in many small bunches so widely distributed over the 2,560 acres that it was difficult even to keep track of them.

The number and size of bunches as well as the time that they are apart will depend upon the size and topography of the inclosure, the acreage and distribution of heavily forested areas, the length of time that the sheep have been without a herder, the condition of the forage crop, atmospheric conditions, and especially the age of the lambs.

On an untimbered area the sheep would scatter widely, but would seldom be apart any length of time. In a heavily forested inclosure they would separate more frequently, and would not come together so easily. After having been herded, it takes them some time to depart from their old habits and accommodate themselves to the freedom of the pasture. When the forage is plentiful and of choice quality they are quickly satisfied, and the tendency to run about is not so great as it is when the main crop dries and a sparse growth of green grass appears in the fall. The main factor, however, is the tendency of each ewe to look after her lamb. This attention on the part of the ewe gradually becomes less as the season advances and the lamb becomes less dependent upon the mother for support. Consequently, the tendency to separate increases.

The time that a ewe and her lamb may be left apart depends upon the age of the lamb. For the first two days after birth he will make the best progress if he is suckled at intervals not exceeding two hours. The time between feeds may then gradually increase. After he begins to eat green, succulent forage, the milk is not so necessary in satisfying hunger, but is still essential to rapid growth, and he should not be away from the ewe for more than four or five hours. At four months of age he lives

for the most part upon forage, but still the milk gives a roundness and beauty of growth that is not attained without it. However, at this age he can go all day, and occasionally longer without being suckled, provided there is sufficient tender forage to satisfy his needs. If these natural requirements are kept in mind and judgment used in handling a band of ewes and lambs, there will be little danger to the ewe from accumulation of milk, and the growth of the lamb will not be retarded.

If the sheep are contented, the bunches cannot be too small for the good of the range. But until the lambs are from four to five months old the small bunches made up of ewes whose lambs perhaps are in some other bunch and lambs whose mothers are elsewhere are restless after they have been separated from the band for several hours. As a result they move about considerably, to the detriment of both sheep and range. Toward the close of the season, when the lambs are practically independent of their mothers, the small bunches are contented and the destruction of forage by trampling is at a minimum. The aim, always, should be to keep the sheep contented and grazing quietly and openly. It may be advisable and even necessary at times to drive small bunches to the main band.

#### OPEN GRAZING.

It has already been said that the sheep should be contented and graze openly and quietly. Close bunched grazing, massing, running, and trailing should be prevented if possible. The destruction of forage by trampling is greatest when sheep are in large bunches, under herders who are continually using the dogs on the leaders and the "drag bunch" to make them keep pace with each other. It is least when the sheep are in small bunches, each ewe with her lamb at her side, grazing openly and quietly. The actions of the pasture band were not ideal in this respect, but the tendency to open quiet grazing was much more pronounced than under most herders, and it increased as the season advanced.

During the first month the entire band was together most of the time, but it spread out over so large an area and grazed so quietly that the unnecessary damage due to trampling was limited to occasional running and to trailing over pine grass areas from one choice glade to another. As the season advanced the sheep grew more independent of each other, were less easily frightened by any slight noise, and the number of small bunches increased. As a result, close bunched grazing was rare and there was very little trailing. Before the experimental period closed it was almost impossible to keep them close bunched without using a dog. Bunch them up and immediately they would spread out in every direction. They simply would not graze close bunched.

## RAMBLING ABOUT.

The distance covered by the sheep during twenty-four hours varied from one-fourth mile to two and one-half miles, the usual distance being one mile or less. The distance traveled varied considerably, even under the same conditions of forage crop and atmosphere. In general, sheep travel less when the forage is choice than when it is dry or scarce; less on hot days than on cool days; less in timber than on the untimbered areas, and less after the lambs are independent of the mothers than when they are from three to four months old.

Usually, small bunches move a shorter distance than larger bunches. A small bunch in some instances would graze for two or three days within a radius of one-fourth mile. The larger bunches would do this only when they were on a meadow area where there was abundance of attractive flowering plants and clover. The shorter the distance traveled, the less energy is expended, but the distance covered in a day is not in itself a measure of the forage destroyed by trampling or needlessly wasted as energy. A large band of sheep will destroy more forage by coming together on the run, when scattered over 100 acres of ground, than they will by quietly grazing in one direction, well spread out, all day, even though they travel two miles.

## EFFECTS OF THE PASTURAGE SYSTEM.

The economic importance of the pasturage system of handling sheep can best be determined by a careful comparative study of the results obtained under this system and those obtained in the same or a similar locality under the herding system. The comparative results fall naturally into two divisions, the effect upon the sheep and the effect upon the carrying capacity of the range.

The experimental period at the coyote-proof pasture covered the summer season from June 22 to October 1. The pasture loss was 4 head out of a band of 2,040, less than one-fifth of 1 per cent, while the loss from bands of 2,000 head on the outside varied from 20 to 60, or from 1 to 3 per cent. At market prices, October 1, 1909, this was equivalent to a loss of \$16 from the pasture band as compared with approximately \$200 from each outside band of the same number.

The marked difference in loss was due to several things. On the outside range small bunches occasionally are cut off from the main band, and, at best, some of the sheep are killed by predatory animals before the loss is known and the bunch found. Outside bands lose a few sheep by coyotes and bear in the timber during the day and on the bed ground at night.

The loss on outside range due to "piling up," timber snags, and bruises varies considerably with different herders. If a herder uses his dogs when the sheep are spread out in heavy timber, there is much danger of broken legs, snag wounds, and



internal injuries from jamming, and perhaps, though rarely, a "pile up." In such cases the actual loss by death may be small, but the "hospital bunch" will be large and made up of sheep that are almost valueless. In 1908 a few head were lost from snags and bruises in the pasture, but in 1909 great care was exercised not to frighten the band at all, and not one sheep was lost from injuries. The "hospital bunch" consisted of one lamb with a broken leg.

#### LOSS FROM POISONOUS PLANTS.

The losses from poisonous plants afforded interesting observations, and gave a few results that may prove of value to sheepmen in avoiding loss from this source. In 1908, and again in 1909, every band which grazed on outside range adjoining the pasture sustained a loss from poisonous plants, varying from 5 to 40 head. The heaviest loss occurred where sheep had been driven all day and then turned on an area where lupine and purple larkspur (*Delphinium menziesii*) were prevalent. In a few instances the loss in a single night reached 30 head, mostly lambs. In 1908 the pastured sheep were turned loose in the afternoon, after having been driven some distance without grazing. Within thirty-six hours 5 lambs died. None died later, notwithstanding the fact that larkspur and lupine were present all over the inclosure. In 1909 the pasture band, before entering the inclosure, were on range adjoining the experimental area, and from 1 to 3 head died each day from poison. They were put into the inclosure in the morning and immediately placed on an area comparatively free from lupine, but with a good deal of larkspur. On this rather small area they were held all the first day until they were well filled up. After that they began grazing each morning between 3 and 4 o'clock, and did not bed down at night until 8 o'clock or later, so that they were never really empty and hungry. Not one case of poisoning occurred during the season, yet on adjoining range outside there was constant loss from this source.

Since the poisonous plants were about equally abundant inside and outside of the pasture, the difference in loss was attributed to a difference in handling. Without doubt the sheep in the pasture and those on the outside range ate the same species of poisonous plants, but it has been observed that when a sheep is very hungry he will use less power of selection and may eat a whole plant at once, where only tender leaves and choice portions will be nipped off if his hunger has been satisfied and he is free to graze about, selecting his forage. The herded sheep too often remain on the bed ground many hours. In the morning they go out in a band, abreast and hungry. Without selecting, they eat everything that is not positively objectionable to the taste, and they may eat the whole plant—flower, leaves, and stem. Consequently a few of the herded sheep ate the poisonous plants in



sufficient quantity to produce more poison than the system of the animal could cast off, and death from poisoning resulted. On the other hand, the pastured sheep ate the same plants, but in smaller quantity, and there were no fatal cases.

#### WOOL GROWTH.

The effect of the pasturage system upon wool growth cannot be arrived at definitely without a year-long test in pasture. It is well known, however, that in order to secure a fleece of good staple and uniform quality the sheep should be kept in good condition during the entire year. If there is a period of a few months during which the animal is in poor flesh there will be a flaw in the wool. The pasturage system is ideal for producing a fleece long in fiber, uniform in quality, and clean, provided the forage crop is satisfactory. The sheep are free and quiet all the time, they will grow larger and can be kept in a better and more uniform condition of flesh than when herded.

#### COST OF HANDLING.

It has already been said that one energetic man can care for four adjoining pastures during the summer grazing season if they are coyote-proof. Under such an arrangement he would handle from 8,000 to 10,000 head. It would be necessary to supply him with salt and provisions. To handle the same number of sheep in four bands on the outside range would require four herders and two camp men. On this basis it is safe to say that the cost of handling in pasture would not exceed one-fourth the cost of handling on outside ranges.

#### SUMMARY.

To summarize the results obtained from observing the actions of sheep under the pasturage system:

1. When left unmolested by herders and dogs in an area protected against destructive animals, a band of ewes and lambs will accommodate themselves to the freedom of such a system and will separate into small bunches, coming together occasionally but again separating. With few exceptions they will graze openly and quietly. They may travel little or far, but massing, running, and trailing in a compact body are seldom in evidence, and, consequently, little damage is done to the forage crop. There is a slight tendency to assemble for the night, but this materially decreases as the lambs become less dependent upon the mother ewes. The tendency to graze about all day and bed where night overtakes them is very prominent.

2. As a result of this protection and freedom, the loss from the pastured band during 100 days was .2 per cent, as against from 1 to 3 per cent from bands herded on range adjoining the pasture. Lambs handled under the pasturage system, between

the ages of 2½ months and 6 months, were 9 pounds heavier than the best lambs of any class that had been herded on the adjoining range. The pasturage system will give a heavier, more uniform wool clip, and the cost of handling will not exceed 25 per cent of the cost under the herding system.

3. Further, as a result of protection and freedom, the carrying capacity of the range is from 25 to 50 per cent greater than when grazed under the prevalent methods of herding in large bands on the open range.

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### "THE NEW TARIFF AS ITS FRIENDS SEE IT."

A STRIKING ANALYSIS OF THE ALDRICH-PAYNE LAW BY  
CHARLES HEBER CLARK OF PHILADELPHIA.

MR. CHARLES HEBER CLARK, of Philadelphia, one of the ablest of American writers and economists, presented in a recent number of the "Saturday Evening Post" a remarkable article, "The New Tariff as Its Friends See It," setting forth the case for the Aldrich-Payne law and the policy of protection. The article is a powerful corrective of many of the careless or dishonest statements widely circulated by the daily press and magazines. It deserves a wide reading, and is and will continue to be valuable for reference. By permission of the "Saturday Evening Post," Mr. Clark's article is reproduced herewith:

There is a kind of man who always takes a small view of a large subject. If you shall speak to him of the glory of religion, of the splendor of sacrifice, of the beauty of holiness, of the sweetness of Christian love and of the inspiring heroism of the noble army of martyrs, he will answer: "Yes; but it costs me ten dollars a year for pew rent."

Turning from spiritual things to material things, you may point him to an economic policy framed by one of the most illustrious of the founders of our Government, sanctioned by Washington and a long line of mighty statesmen, Lincoln among them — a policy with which this nation has grown to industrial greatness without precedent in the history of mankind — and our narrow friend will answer: "All very well; but it makes me pay a cent a pair more for stockings and ten cents more for a hat."

I shall not contend that the costs of living are too despicable for attentive consideration. I do contend, however, that no man can estimate a vast national concern by looking at a single aspect of it. If you would perceive the beauty of the architectural proportions of a noble building, do not glue your eye to a single brick.

It will be denied that the protective policy has helped this nation to unequaled industrial power. But no man can prove that it has not made this achievement; and I can prove not only that all forward movement in this country is coincident with the existence of this policy, but that no nation, at any time, has acquired true industrial strength without the aid of tariff protection.

I challenge contradiction of that declaration.

#### OUR DOUBLE RÔLE OF PRODUCER AND CONSUMER.

To begin with, let me protest against the oft-repeated attempt to divide the people into separated classes of producers and consumers. There can be no such division. Every man not a mere tramp is both a producer and a consumer.

The brakeman on a train, the man who drives a cart, the clerk in the bank, are producers. Even the idle rich man is a producer, for his money works, and must work for him. Should some tremendous cataclysm suddenly destroy every manufacturing industry in the great State of Pennsylvania it would hurt in his pocket every honest man in the United States. As the Apostle said, long ago, "We are members one of another." All of us are more or less dependent upon each of us.

The vital need of our Government is assured revenue. The Government is not a producer. It is a protector and cherisher of the interests of the people. The revenue must come from the earnings of the people. It is an excise — something cut off from the earnings of those who do produce wealth.

This taxation may be done in several ways. Great Britain, with less than half our number of people, collects as much revenue as we do.

Her method is to tax the people directly, reaching far down into every pocket and, meantime, letting in free, through her custom houses, the products of the industry of other nations.

Our method, which takes from the people fifty cents where England takes a dollar, is to make the levy largely by requiring the foreign producer to pay for a license to enter our market for the purpose of competing with the domestic producer.

The result is twofold. First, the tax is taken in part indirectly from the citizen and often without his consciousness; second, the foreigner is compelled to pay a part of the tax for the privilege of admission here.

It is a not uncommon delusion that the customs duty is always added to the American price. The truth is that in many cases the American price, with duty added, is no higher than the foreign price.

Here are a few proofs of this fact. Last spring Congress removed the duty from hides. At once the exporters in Argentina advanced the price of hides to the extent of the withdrawn duty. A few years ago, in response to a popular cry for "a free

breakfast-table," the duty was taken off of coffee. The government of Brazil instantly added it as an export duty. In both cases our Government surrendered revenue which was pocketed promptly by foreigners, and the American consumer had no benefit of any kind.

The McKinley tariff first imposed a duty of  $2\frac{1}{2}$  cents a pound on tinplate, which then was selling for \$5.34 a box. The foreign price at once dropped to \$3.30 a box. Who paid that duty?

In 1871 steel rails sold for \$102 a ton, and a duty of \$28 a ton was laid. In 1894 the price dropped to \$29.92. Who paid that duty? In 1883 the duty was reduced to \$17 a ton, and in 1898 the price fell to \$17.62. Who, also, paid that duty?

An importer whom I know paid \$1 for a German linen article when the duty under the Wilson tariff was 35 per cent. Dingley put up the duty to 50 per cent, and the German exporter, rather than lose his trade, lowered his price to 90 cents. Who, I ask, paid the increased duty?

I assert it to be the rule, with exceptions, of course, that the prices of European articles are lowered so that the American market may be reached. The result is that, in many cases, the American not only pays little or no more here than he would have to pay in Europe, but the European actually relieves him from a part of his taxation. The tariff, then, actually saves money to masses of the American people.

I may extend this matter a little further. The duties upon steel rails have indeed been high. But, under those duties, we have built one-half the railway mileage of the world; and whereas the average freight rate per ton in Great Britain is about 3 cents a mile, in the United States it is — conducted over those very rails — four-fifths of a cent a mile, or the lowest rate in existence.

In what manner, then, has a high duty upon rails hurt the American citizen?

#### HOW TARIFF FIGURES MISLEAD.

I do not intend in this article to deal largely with percentages. I prefer exact final figures. Resort to what has been called "the percentage trick" is a favorite practice with those who would mislead plain people. Percentages do not always, by any means, indicate prices. You tell a man that some common article of necessity bears a duty of 129 per cent, and he is startled and angry.

He will not reflect that as percentages go up prices may be going down. When the price of tinplate was, say, \$5 per 100 pounds, a  $2\frac{1}{2}$  cents duty was a 50 per cent duty. When the price of tinplate declined to \$3.30 per 100 pounds the very same duty became a 76 per cent duty.

If stockings, valued at \$1 a pair, had a specific duty of \$1, the tax would be 100 per cent. When — the duty remaining fixed — the price of the stockings fell to 50 cents a pair, the duty would



be 200 per cent. If the stockings should fall to 10 cents a pair, the fixed duty would be 1000 per cent.

The important question, of course, is not at all what is the percentage of duty upon stockings but what do you have to pay for a pair? You can buy, to-day, two pairs of good half-hose for 25 cents, and there is no peril in the assertion that never since the world was made could you get, tariff or no tariff, so good hosiery for so little money.

The reasons are, first, that the home supply is abundant and excellent, and second, that the Americans, solely because the industry — and therefore the incentive — was here, have invented the most wonderful and productive knitting machinery.

A part of the contention of the free trader just now is that prices have, of late, seriously advanced, and that the tariff is to blame for it. But how shall he prove his case? Rubber, within two years, has gone up from 69 cents a pound to \$2.15, but rubber is, and always has been, on the free list. Cotton, within the same period, has risen from 8 $\frac{1}{4}$  cents a pound nearly to 16 cents; but obviously no tariff duty can affect the price of cotton. The price of hides advanced as soon as we took the duty off. Iron duties have been reduced 40 to 50 per cent, but iron prices have gone up. Sugar duties have been cut, but sugar prices are greater. If the prices of these things have gone up without influence from the tariff, why should we believe that the tariff has lately advanced the cost of woolens, when there has been no change of any kind in the duties upon woolens, excepting to lower them?

Manifestly these increases, noted the world over, are not produced by our tariff legislation. We may seek, perhaps, for the impelling force in high prosperity, stimulating consumption, or, as some wise men do, in the extraordinary development of the world's supply of gold.

#### OUR OLD FRIEND, THE FARMER.

But why should the Government give aid and comfort, through the instrumentality of a tariff law, to a single class of citizens — the manufacturers?

The aid is to be given, of course, where it is needed. Builders, lawyers, retailers and so forth are sufficiently protected by Nature. The manufacturer gets help where it is required. The farmer also, let us note, gets it far more abundantly when he requires it.

Do you ever reflect upon what our Government has done, and now does, for the American farmer?

Millions of farms were given, years ago, to the farmers, absolutely without charge. The Government never gave a mill to a manufacturer. Other millions of farms have been sold by the Government, and now are selling, at the lowest of low prices.

The nation maintains an Agricultural Department — the



manufacturers have no department—which costs from ten millions to twelve millions a year. This department not only distributes vast quantities of seeds, but also it instructs the farmers, analyzes their soils, improves their animals, destroys at great cost the cotton boll-worm and injurious insects, and helps them to stamp out diseases in plants and animals.

Hundreds of millions are spent in constructing irrigation works so that poor land may be redeemed for the farmers; and in divers and sundry other ways the American farmer is assisted, encouraged, upheld and made the object of incessant large expenditure.

No man may complain of this. It is well done. That is what a Government is for—to do for the people the things they cannot do for themselves. We are the Government! The money is ours. All these toilers are our brethren. All are Americans. Their welfare is our welfare. The soil feeds every man of us. The huge expenditure for the splendid development of agriculture is an investment of a common fund for the benefit of all.

But, if this be true for the farmer, why is it not true for the manufacturer? The farmer, rightly, gets enormous sums of money as a gratuity from the Treasury, and he is the constant object of solicitous, almost maternal, attention.

What does the manufacturer get? Absolutely nothing but shelter for his business from a powerful foreign rival, whose highest felicity would be the annihilation of his American competitor.

If it be worth while to spend hundreds of millions every year for battleships, in making ready for a gunpowder war that is likely never to come, why is it not well to employ for our protection our law machinery for service in a commercial war at this very moment raging the world over?

Commerce is indeed war, and merciless war. No tidings could bring to Europeans a thrill of joy equal to that which would come to the Old World if announcement should be made that one-half the manufacturing power of the American nation were wrecked and ruined, and finally and forever wiped out of existence.

Now let us consider a few specific cases of articles concerning which tariff protection has been complained of.

#### THE CASE OF THE UNIVERSAL SWEETENER.

The duty upon sugar has given much offence to the advocates of free trade or of severe tariff reduction. What justification is there for continued imposition of that duty?

It was laid not only for the sake of obtaining needed revenue but also for the purpose of promoting the production of beet-root sugar in this country. Many European countries now give bounties directly to the growers and manipulators of that sugar

beet for which the world is indebted to the intelligence of the first Napoleon.

The question for us was: Should the farmers directly, and the people generally, have the benefit of the development of the industry in the United States? Clearly it could not live and grow in open competition with the bounty-fed sugar of Europe.

A duty was imposed in the seventies, with the result that now we produce at home, annually, beet sugar to the value of nearly fifty million dollars. Thus the farmers had a new and profitable crop, and the nation came nearer to independence in an important food article.

Before the Civil War — I disregard war prices as unnaturally inflated — ordinary household sugar cost, say, 8 cents at retail. Now a better sugar may be bought for  $5\frac{1}{2}$  cents a pound. Some day we shall grow all of our sugar supplies. Why not, if we would deal fairly with the subject, instead of scoffing at the small saving to each person made possible by the recent reduction of the sugar duty, look at the matter in this way:

The difference between 8 cents a pound and  $5\frac{1}{2}$  cents is  $2\frac{1}{2}$  cents. What is the worth to the nation of a saving of  $2\frac{1}{2}$  cents a pound on all the sugar consumed by 90,000,000 of the most prosperous people on earth? Beet sugar made that reduction in the price. Were there now as in the old time nothing but sugar from the cane, the price not unlikely would be 15 cents and, perhaps, 20 cents.

The duty on paper and the wood pulp from which paper is made has been made the subject of much acrimonious complaint. So far as the matter involves Canada, that country, by imposing an export duty upon paper-making wood, is simply striving to compel us to let her make all our paper. We are asked to permit her to force American paper manufacturers to go out of business, or to move their machinery across the border.

Who is willing to allow Canada to control in such a manner our business affairs or our fiscal policy?

An attempt is made to scare us by the declaration that Canadian discrimination against us in taxing wood and pulp for export will compel us under the new tariff law to impose the heavy maximum duties upon all Canadian products. This would ruin our import trade with the Dominion.

The truth is that, as Canada's export duty is levied upon exports to all lands, there is no literal discrimination against us; and I have the authority of a member of the Ways and Means Committee, which framed the tariff, for saying that imposition of the maximum — or retaliatory — duties upon Canadian products is an impossibility. But what interest has our dear old friend the consumer in the paper and wood-pulp controversy? We must consider him.

What happens to the consumer because of the wicked and semi-barbarous paper and pulp policy is that he actually gets his

daily paper at a lower price than is paid by any other man in any land upon the rolling earth. Nowhere but here is the one-cent daily newspaper in successful, large existence.

Who, then, suffers? Not the consumer. Does the newspaper publisher suffer? If so, why does he not put up his price to two cents, or to five cents? Nobody can hinder him. His blank white paper costs him more, if you please, than he gets for it. How then does he come out with a profit? His advertisers save him and sometimes make him rich.

But are the advertisers complaining? Not that anybody hears. They are satisfied, the buyers of the journals are satisfied, and the publishers have prosperity if they deserve it. Shall we, under such circumstances, kick a hole in the protective system, bankrupt papermakers, and force a great domestic industry to emigrate?

We may safely intrust that question to the sound common-sense and the solid equity of the American people.

I come now to the consideration of an article around which the fantastic imagination of the free trader has played tricks, in which ingenuity expends itself in contriving surprising varieties of mendacity. Ananias, Baron Münchhausen and Count Cagliostro are not in the game with the delirious free trader when he sets himself to consider the homely article of wool.

Recall the fact that the Government must have income. Then take the further fact that import duties upon wool and woolens have put two hundred and ninety-three million dollars in the United States Treasury within eleven years, and you have an apology for the wool duties that might be regarded as about covering the case.

Now take another fact of no contemptible significance: The presence in this country of millions of sheep means not only wool but mutton chops, and hind and fore legs, and all the other sheep-meat requirements. That the presence here of this great supply of flesh food tends to keep down the prices of other flesh food — beef, pork, poultry, and so forth — will not be questioned.

#### DEAR WOOL AND CHEAP MUTTON.

There are level-headed economists who steadfastly believe that this depression of prices produced by the domestic mutton supply has, throughout the long years, fully compensated for all the duties paid at the ports for wool and woolens. In fact, all of the wool tax has been offset completely by the decrease in the price of flesh food.

I am bold enough to assert that on my own account as a practically incontestable fact.

But, says the free trader, we should have had the sheep if wool had been upon the free list. It is always fairly safe to guess about might-have-beens. Let us grapple with some solid facts. Mark this one. The number of American sheep has always

increased or decreased as the wool duties were sufficient or insufficient in size. I must inflict some figures on the patient reader. Let us take a period of forty-two years, from 1867 to 1909 :

Tariff of	Wool Duty Per Lb.	Number of Sheep.
1867, last 4 years . . . . .	12½ cents	25% increase.
1883, 6 years . . . . .	10 cents	16% decrease.
1890, less than a year . . . . .	11 cents	10% increase.
1894, less than a year . . . . .	Free wool	21% decrease.
1897, 12 years . . . . .	11 cents	46% increase.

These figures show, beyond controversy, that whenever the duty on wool went below eleven cents a pound American sheep were killed off and the flocks — and the mutton supply — decreased. They prove that the flocks always enlarged when the duty went to or above eleven cents a pound. — In other words, they supply what I may call final evidence that the American farmer will not herd sheep unless he has tariff protection enough to give him a decent price for his wool product.

This downward movement of the flock dimensions, under inadequate duty, seems to me to show that no duty at all, or free wool, will produce ultimate extermination of the American sheep. Does it not clearly indicate just that?

We grow here three hundred million pounds of wool, which is one-eighth of the world's clip. I ask reasonable men, not blinded by prejudice but fair and wise enough to regard a great matter in a large way, this question :

If you destroy one-eighth of the world's wool supply will not the remainder rise in price? And will not that rise take much more money out of the pockets of the consumer than all that has ever been taken by tariff duties?

It is indeed almost a question of simple mathematics. Scarcity means high prices. Moreover, what must be the condition of a mighty nation dependent for a vital necessity upon foreigners? I am convinced that the power to grow most, if not all, of the wool we need would be cheaply purchased if we could get it only by giving bounties directly to the wool growers, as France does to her sugar-beet raisers.

Furthermore: If it be wise to spend tens of millions to help the farmer to water his fields, to kill his bugs, to improve his stock, to learn the best methods of tillage, why — oh, why, indeed! — is it not worth while to levy a small duty at the ports, so that he may supply his fellow-citizens with material for clothing?

#### THE DIMENSIONS OF THE WOOL TAX.

What does the duty on wool amount to when the clothing reaches the consumer? What is this dreadful burden that the tariff puts upon the suffering poor man?



An ordinary suit of \$15 or \$20, made wholly of wool, contains from seven to eight pounds of that material. The duty is 11 cents a pound and, therefore, the tax on such a garment is from 75 cents to 90 cents. The suffering poor man aforesaid, and the joyful poor or rich man, pays that much on, say, three suits a year, for the sake of his beloved country, of the horny-handed farmer, of the mutton butcher, the United States Treasury and the good old cause generally.

I put the tax at \$2 or \$2.75 per annum, and small indeed it seems when we consider the resounding, far-reaching, long-drawn-out and long-continued ululations which it has brought from the vocal organs of free-trade complainants. One might think, from the volume of the racket made, that the wool tax appropriated quite half of the afflicted poor man's income. It amounts, probably, in a year to what he pays for tobacco in a month.

This is the duty on raw wool; now, how about the cloth that consumes the wool? I will put the facts in this form: An all-wool cloth sold for a dollar a yard gives a profit of 5 cents a yard to the manufacturer: not a robber portion, surely! When the cloth goes into a suit of clothing that profit will not equal 17 cents. Thus:

In a three-piece suit retailed for \$12, the cloth — all wool — costs about \$3. In a similar suit sold for \$15 the cloth costs \$3.75. In a \$20 suit it costs \$5, and in a \$30 suit \$7.50.

Surely here is not strong temptation to stuff the fabric with cotton and shoddy, of which we hear such wild free-trade lamentations. I do not say that cotton and shoddy never are used; but then, either the cloth is sold for cotton and shoddy, at cotton and shoddy prices, or the dealer is a knave; and even conditions of free trade would not avail to stop rascality. England, with free trade, produces more shoddy than any other country.

I will push the case a little closer. If these are the facts concerning the raw wool and the cloth, where lies the cause for the difference in cost between the cloth and the completed \$20 garment? It lies, in my judgment, with the retailer. This gentleman, with a perfect right to do his best for himself, and requiring margin for the familiar late-season "marking down" of suits anywhere from 25 to 50 per cent, appears to make a handsome thing of it.

I learn that he pays, say, \$7 for a suit that he sells for \$10, which means that his ordinary profit is somewhere about 43 per cent on that one transaction. Besides, if he is a prompt payer he probably gets a discount from the wholesale dealer. On suits retailing at \$18 and \$20 he probably makes a profit of 50 per cent, and the profit will go higher as the price rises.

I find no fault with this. The suits are in most cases worth to the wearer what he pays for them. But I do protest against the injustice of holding the wool grower, the spinner, the cloth-maker



and the tariff responsible for a matter that lies solely between the suit-seller and the suit-wearer.

In any case this fact may be noted: the American workingman wears better clothing than any other man in the world of his class, because, under the protective system so fiercely denounced, he earns more money with which to pay for his necessities. It would not be, indeed, hazardous to conjecture that American workingmen wear more unadulterated woolen stuffs than all the other workingmen of all other races put together.

Thus, when you look this wool and woolens monster in the face, he is not such a monster after all!

#### THE COST OF LIVING.

A familiar complaint against the tariff is that it increases the cost of living, making that cost much greater than it is in Europe. But what kind of living? A European laborer, who lives in a mud cabin, wears wooden shoes and eats meat twice a year, does indeed live cheaper than an American workman who — as multitudes do — owns a brick house with a bathroom, a Brussels carpet, a piano, and electric lights, and who wears fine clothes on all idle days. The American pays more, maybe, but he gets more; and that, dear brethren, is the only way in which any man can account for the stupendous fact that within eighty years 23,000,000 European laborers have come over here to live. They know what the difference is. They have learned where the poor man's good things are, tariff or no tariff.

But, indeed, is living here so very much dearer than it is in the best European countries? I doubt it, quality for quality.

Take a brief glance at the subject. More than 40 per cent of a workingman's expenditure is for food; and that food, by and large, is cheaper here than in Europe is finally proved by the fact that all Europe comes here to buy food.

House rent consumes about 15 per cent of such a man's income. But there is no tariff duty on houses, and the rent is higher because the house is better. Clothes take another 15 per cent, but the larger part of men's, women's, and children's clothing is cotton, and we beat the world on the three-fourths of the world's supply of cotton that we grow in American fields.

Fuel calls for 9 per cent of the man's income, and we have coal in illimitable quantities, the laborer's supply being unaffected by the tariff. Light consumes 5 per cent and our oil is the cheapest of all lights. About 16 per cent is spent for sundries, carfares, church, and club dues, newspapers, magazines, and personal enjoyment, with none of which has the tariff anything to do.

I take the liberty, therefore, of doubting whether living here really costs more, surely not much more, than it does in Europe, if you consider what a man gets out of it in this better country. If the world holds a poor man's Paradise, assuredly here it is in

this tariff-afflicted, solidly-protected, but rich and glorious and surpassingly happy country of ours.

I say that the theorists who never come into contact with industry, who have never penetrated below the skin of the facts, who would rather find fault than be fair — the academic people, the people who merely work it out in their minds with their eyes shut — these are the folks who scoff at and denounce tariff protection and make all the stir and fuss about the injustice of a splendid, century-old national policy.

Finally: The accusation is urged that the Republican party promised to revise the tariff downward and failed to make good.

No such promise was given. The plank in the platform is too long for insertion here, but I will let President Taft — in his speech at Winona — tell the truth about it:

“The promise of the Republican platform was not to revise everything downward. . . . I did not promise that everything should go downward. . . . The proposition of the Republican party was to reduce rates so as to maintain a difference between the cost of production abroad and the cost of production here, insuring a reasonable profit to the manufacturer on all articles produced in this country. . . . I did not agree, nor did the Republican party agree, that we would reduce rates to such a point as to reduce prices by the introduction of foreign competition.”

#### THE TARIFF AN ARTIFICIAL DEVICE.

The plank referred to promised to consider the “difference in the cost of production” between this country and other countries. But who shall with precision determine that difference? There is one difference as between us and England, another in the case of Germany, and quite another in the case of Japan. And all the time these differences are fluctuating with costs of material and other costs.

What we require are duties high enough to cover all cases and all upward and downward movements. We want the protective principle firmly established and in continuous operation, so that our own producers may conduct their business in peace and with decent profits.

Judging by the successive Congressional elections, that is what also the great majority of the American people require.

Often I have heard the objection made to the protective system that “it is artificial.” It is indeed! Artificial! Why, civilization and law and government are artificial! The only unartificial and perfectly natural people are the naked Africans at this moment running about the torrid zone eating one another and having, one would think, a mere minimum of fun.

All the arts and sciences, all books and pictures and vehicles and machinery are artificial. Our railroad trains, telegraphs, telephones, electric lights, our houses and clothes and churches

and other comforts, are artificial. Fertilization of the earth, improving the quality of fruits, breeding fine animals by selection — in short, all the things that make life secure, pure, progressive, uplifting and happy, come to us not by nature but by artifice.

The tariff is indeed “made ground.” It is not unlike the Holland dikes, which also are artificial. The dikes keep out the sea, and the law keeps out anarchy, and the tariff keeps out destructive foreign competition.

Were these defences not in existence, the sea would flood the Dutchmen, anarchy would swamp our nation, and the foreigner would shut our mills and force our people into idleness, as millions are at this very moment idle in the free-trade Eden of England.

The American free trader, who abhors artifice and who wants to live the life of a simple child of Nature, will have to go off to the African cannibals, or hie him to a desert island where he can have his own sweet will all by himself.

## THE ENGLISH CENSUS OF PRODUCTION — 1907.

### STATISTICS OF THE WOOL AND COTTON MANUFACTURE.

IN the textile trades only returns relating to spinning, doubling, weaving and their subsidiary processes have been tabulated; bleaching, dyeing, printing, and finishing are only included so far as they are done by, or on commission for, spinners or weavers. Where cotton piece goods, for example, were sold “in the gray” by a manufacturer to a merchant and the merchant had them bleached on commission, the quantity and value included in the table showing the output of the cotton trade are the quantity and value of the unbleached cloth. Cotton hosiery and cotton lace are also not included.

The schedules for the trades under review were prepared in consultation with Special Advisory Committees appointed by the Board of Trade, and have on the whole been filled up in a satisfactory manner. In some, comparatively few, cases of small firms certain particulars have had to be estimated where the information given was incomplete. The figures now published are of a preliminary character and are subject to correction when the examination of the returns under the Act, now in progress, has been completed and when certain queries at present outstanding have been answered by the firms to whom they were directed,

but they may be taken as substantially representing the facts relating to the several industries.

The "Output" shown in the tables is the gross output of each trade, *i.e.*, where goods pass through the hands of several manufacturers at different stages, their quantity and value have been registered at each stage. The value of this gross output is, therefore, much greater as a whole than the value of the goods ready for export or consumption manufactured by each trade considered as a unit.

In the tables the quantities and values of the principal products are shown in the classification adopted in the official export and import lists. The figures entered against each class show the output of that product in the year, whether sold or not, after deducting any amount worked up in the same factory into goods of a kind separately classified. Thus, for example, the entry against cotton yarn shows only that portion of the yarn spun in the year of return which was either sold as yarn or remained in stock at the end of the year as yarn, and does not include yarn woven into cloth by the spinning firm.

The result of deducting the total cost of materials used and the amount paid to other firms for work given out from the value of the gross output from any one industry or group of factories, is to give a figure which may, for convenience, be called the "net output" of the industries or the group. This figure expresses completely and without duplication the total amount by which the value of the products of the industry or group taken as a unit exceeded the value of the materials purchased from outside, *i.e.*, it represents the value added to the raw materials in the course of manufacture. This sum constitutes for any industry the fund from which wages, salaries, rents, rates, taxes, depreciation, and all other similar charges as well as profits have to be defrayed.

#### COTTON FACTORIES.

*Output.* — In the case of the cotton trade the value of the gross output of all the factories is, of course, far in excess of the value of the output of the trade as a whole considered as a unit, and owing to the fact that the sales of yarn to cotton manufacturers cannot be distinguished from sales to manufacturers in other trades or to foreign markets, it is not possible to give any figures with regard to the quantity or value of cotton yarn sold outside the trade. As, however, factories engaged solely in dye-

ing, bleaching, and finishing are not included in this group, and the piece goods manufactured are not to any extent sold to other factories in the group, the following particulars of the piece goods manufactured for sale represent a practically complete statement of the output of the weaving branch of the cotton trade.

	Quantity.	Values.
	<i>Yards.</i>	<i>£</i>
Unbleached gray piece goods . . . . .	6,447,798,000	72,676,000
Bleached white piece goods . . . . .	5,265,000	79,000
Colored cottons * . . . . .	606,559,000	9,099,000

\* Including a small quantity of goods dyed in the piece.

The bleached piece goods above included are goods bleached by, or on commission for, weaving firms. No printed cottons are included in these returns. The great bulk of the bleaching and dyeing, and the whole of the printing of cotton goods, is performed on goods purchased from the manufacturing firms. These processes will form the subject of a subsequent series of tables.

It will be seen that the total number of yards of cotton piece goods woven for sale was 7,029,622,000 and the value £81,854,000. Another table shows that 16,881,000 yards of unbleached piece goods and 44,982,000 yards of colored cottons were woven on commission. Part of this is no doubt included in the figures given for piece goods woven for sale, being made for other manufacturers, but the great bulk would certainly be made for merchants. The selling value of these piece goods cannot be stated.

As regards cotton yarn the total quantity sold as such or manufactured for stock included in the returns was 1,507,381,000 pounds and the value of such yarn £79,371,000. This figure involves some amount of duplication in respect of doubled yarn, which is returned twice, once by the spinner and again by the doubler (in so far as the latter does not spin his own yarn), but the amount of such duplication is probably not considerable. It however excludes altogether yarn spun and used in the manufacture of other goods for sale by the same firm.

In order, therefore, to obtain some measure of the total output of single cotton yarn, a voluntary question was addressed to all factories in this trade, and on the basis of the replies received to this question, which was answered by a large proportion of the more important firms, and of such other sources of information as are available, it is estimated that the total output of single yarn amounted to about 1,826,000,000 pounds. From information voluntarily returned with regard to the



number of spindles, it appears that the average production of cotton yarn per spindle was, per mule spindle, 29.5 pounds and per ring spindle, 60.5 pounds. On the basis of the value of the yarn for sale as given in the returns it would appear that the value of the whole of the yarn manufactured must have been about £96,000,000.

*Net output.* — The net output of cotton factories as a whole was £46,941,000, this sum representing the total amount by which the value of the products of the industry, taken as a whole, exceeded the cost of the raw cotton and other materials used in their manufacture and the work done on those materials by other firms for the principal firms. The actual cost of the raw materials used is of course not known, the total of the sums returned as “materials” including, like the total of sums returned as “output,” a quantity of cotton yarn manufactured by one factory and sold to another.

*Comparisons with 1906.* — In order to obtain a comparison with the trade of the previous year the firms in the cotton trade were asked to state voluntarily the total value of their output in the twelve months preceding the period for which they had furnished detailed and compulsory returns. Firms producing goods to the gross value of £102,723,000, or 58 per cent of the total value of cotton goods produced in the censal year, reported that their output in the previous year (generally 1906) amounted to £97,395,000. The increase of value in 1907, compared with 1906, was thus nearly  $5\frac{1}{2}$  per cent in the case of those firms reporting for both years. It must be remembered, however, that this increase is calculated on the gross value of output, a figure which, as repeatedly explained, differs from the value of the actual goods ready for consumption which are produced by the trade as a whole.

*Persons employed.* — The average number of persons employed in the industry on the last Wednesdays in January, April, July, and October is returned as 572,869, viz., 560,478 wage-earners and 12,391 salaried persons, the total number being distributed according to age and sex as follows :

Males:		Females:	
Under 18 .....	51,709	Under 18 .....	90,061
Over 18 .....	168,854	Over 18 .....	262,245

#### WOOLEN AND WORSTED FACTORIES.

*Output.* — The same considerations as those already alluded to in dealing with the cotton trade make it impossible to give any figures with regard to the value of the products of the woollen and worsted trades taken as a whole. As regards weaving, however, the following statement of the quantities and values of

the principal woven goods made for sale may be regarded as practically complete and free from duplication. Goods made by commission weavers for merchants are, of course, not included, but the quantity is not large.

	Quantity.	Values.
	<i>Yards.</i>	<i>£</i>
Woolen tissues, broad .....	137,188,000	14,704,000
“ “ narrow .....	35,328,000	1,712,000
Worsted coatings and trouserings, broad.....	47,267,000	8,330,000
“ “ “ narrow ....	7,236,000	723,000
Worsted stuffs, dress goods, linings, lastings, etc.,	126,410,000	6,534,000
Damask tapestry and other furniture stuffs ...	2,608,000	247,000
Wool and mohair plushes .....	3,077,000	330,000
Flannels and delaines .....	47,380,000	1,746,000
Carpets.....	26,159,000	3,337,000
	<i>Sq. Yards.</i>	
Rugs, other than travel- { returned in sq. yards,	3,859,000*	606,000*
ing rugs { returned by number..	No. 178,000	41,000
	<i>Pairs.</i>	
Blankets.....	3,071,000	1,448,000
	<i>No.</i>	
Shawls .....	1,290,000	227,000
Coverlets, traveling rugs or wrappers.....	828,000	236,000

\* Including a small amount of work done on commission.

It will be seen that the value of the goods included above amounted to about £40,250,000.

It is unfortunately not possible at present to afford, as in the case of cotton, any estimate of the total quantity of woollen or worsted yarn spun, the voluntary information furnished by manufacturers in this industry not having been sufficiently complete for the purpose. The returns show the following total quantities of yarn spun for sale or for stock, with their values :

	Quantities.	Values.
	<i>Lbs.</i>	<i>£</i>
Woolen.....	40,514,000	2,211,000
Worsted .....	144,303,000	15,869,000
Alpaca and mohair.....	18,625,000	2,346,000
Other hair and wool.....	9,882,000	399,000

The total value of this yarn was returned as about £21,000,000. These figures are *exclusive* of the quantities of yarn spun and used in the manufacture of other goods for sale by the same firm.

*Net output.* — The net output of woollen and worsted factories as a whole was £19,452,000, this sum representing the total amount by which the value of the products of the industry taken as a whole exceeded the cost of the raw wool and hair and other materials used in their manufacture and the work done on those materials by other firms for the principal firms. The actual cost of these raw materials used is not known, since the total of the sums returned as “materials” includes, like the total of the sums returned as “output,” yarn, etc., made by one factory and sold to another.

*Comparison with 1906.* — Firms with an output of £27,181,000 in the censal year (or nearly 40 per cent of the total) reported that their output in the previous twelve months was £25,868,000. The increase of value (in the sense already explained in the case of cotton factories, see page 415) in 1907 compared with 1906 slightly exceeded 5 per cent.

*Persons employed.* — The average number of persons employed in the industry on the last Wednesdays in January, April, July, and October is returned as 257,017, viz., 247,920 wage-earners and 9,097 salaried persons, the total number being distributed according to age and sex as follows :

Males :		Females :	
Under 18 .....	21,953	Under 18 .....	34,087
Over 18 .....	89,485	Over 18 .....	111,492

## Cotton Factories.

TABLE I. — OUTPUT. §

NOTE. — The figures in this table are given to the nearest thousand in each case. Amounts lower than five hundred are not shown.

	England and Wales and Ireland.*	Scotland.	United Kingdom.
	Quantity.		
Yarn (twist and weft) including single and double (twofold or more) yarn:	<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>
Gray . . . . .	†	†	1,507,147,000
Bleached and dyed . . . . .	†	†	22,454,000
Total — yarn . . . . .	1,519,842,000	9,759,000	1,529,601,000
Piece goods (of cotton or of cotton mixed with other materials):	<i>Yards.</i>	<i>Yards.</i>	<i>Yards.</i>
Unbleached, gray (including unbleached dhooties) . . . . .	†	†	6,434,679,000
Bleached, white (including bleached dhooties), Manufactured wholly or in part of dyed yarn, commonly known as colored cottons † . . .	579,000	4,686,000	5,265,000
	†	†	651,541,000
Total — piece goods . . . . .	6,982,727,000	108,758,000	7,091,485,000
Machinery belting, woven hair or cotton . . . . .	<i>Cwts.</i>	<i>Cwts.</i>	<i>Cwts.</i>
Other cotton manufactures not enumerated above, Cotton waste (from worked cotton of every description) sold . . . . .	39,000 (Record ed by value only.)	1,000 (Record ed by value only.)	40,000 (Record ed by value only.)
All other products . . . . .	453,241,000 (Record ed by value only.)	8,701,000 (Record ed by value only.)	461,942,000 (Record ed by value only.)
	Value.		
Yarn (twist and weft) including single and doubled (twofold or more) yarn:	<i>£</i>	<i>£</i>	<i>£</i>
Gray . . . . .	†	†	78,635,000
Bleached and dyed . . . . .	†	†	986,000
Total — yarn . . . . .	79,041,000	580,000	79,621,000
Piece goods (of cotton or of cotton mixed with other materials):			
Unbleached, gray (including unbleached dhooties) . . . . .	†	†	72,755,000
Bleached, white (including bleached dhooties), Manufactured wholly or in part of dyed yarn, commonly known as colored cottons † . . .	18,000	61,000	79,000
	†	†	9,333,000
Total — piece goods . . . . .	80,453,000	1,714,000	82,167,000
Machinery belting, woven hair or cotton . . . . .	308,000	9,000	317,000
Other cotton manufactures not enumerated above, Cotton waste (from worked cotton of every description) sold . . . . .	†	†	9,097,000
All other products . . . . .	4,367,000	83,000	4,450,000
	1,182,000	106,000	1,288,000
Grand total . . . . .	165,351,000	2,492,000	176,940,000

\* The figures for England and Wales and for Ireland have been combined in order to avoid the possible disclosure of particulars relating to the few firms in Ireland.

† In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole. For the same reason the particulars of "Other Cotton Manufactures" are excluded from the total figures for England and Wales and Ireland, and for Scotland.

‡ Including a small quantity of goods dyed in the piece.

§ The table showing work done on commission is not reproduced. The total value of this work was £666,000.

**Cotton Factories.— Continued.****TABLE II.— COST OF MATERIALS USED AND AMOUNT PAYABLE TO OTHER FIRMS FOR WORK GIVEN OUT TO THEM, SHOWN IN RELATION TO VALUE OF OUTPUT.\****NOTE.— The figures in this table are given to the nearest thousand in each case.*

	United Kingdom.
<b>I.</b>	
Cost of materials used . . . . .	£ 129,095,000
Amount payable to other firms for work given out to them . . . . .	904,000
<b>Total . . . . .</b>	<b>129,999,000</b>
<b>II.</b>	
Value of output:	
Goods made for sale . . . . .	176,274,000
Work done on commission . . . . .	666,000
<b>Total . . . . .</b>	<b>176,940,000</b>
<b>III.</b>	
Value of output <i>less</i> cost of materials used and amount payable to other firms for work given out to them . . . . .	46,941,000

\*This can only be shown for the United Kingdom as a whole since the value of the output of "Other Cotton Manufactures" cannot be stated separately for the three divisions of the United Kingdom.

**TABLE III.— PERSONS EMPLOYED.\***

*Average Numbers at Work on the last Wednesdays of January, April, July, and October.*

	Males.			Females.			Males and Females.		
	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.
<b>ENGLAND AND WALES AND IRELAND :*</b>									
Wage-earners . . . . .	48,831	149,323	198,154	80,177	235,785	315,962	129,008	385,108	514,116
Salaried persons . . . . .	962	9,596	10,558	63	247	310	1,025	9,843	10,868
<b>Total . . . . .</b>	<b>49,793</b>	<b>158,919</b>	<b>208,712</b>	<b>80,240</b>	<b>236,032</b>	<b>316,272</b>	<b>130,033</b>	<b>394,951</b>	<b>524,984</b>
<b>SCOTLAND :*</b>									
Wage-earners . . . . .	403	2,079	2,482	2,757	8,688	11,445	3,160	10,767	13,927
Salaried persons . . . . .	25	301	326	15	64	79	40	365	405
<b>Total . . . . .</b>	<b>428</b>	<b>2,380</b>	<b>2,808</b>	<b>2,772</b>	<b>8,752</b>	<b>11,524</b>	<b>3,200</b>	<b>11,132</b>	<b>14,332</b>
<b>UNITED KINGDOM :</b>									
Wage-earners . . . . .	50,637	158,023	208,660	89,979	261,839	351,818	140,616	419,862	560,478
Salaried persons . . . . .	1,072	10,831	11,903	82	406	488	1,154	11,237	12,391
<b>Total . . . . .</b>	<b>51,709</b>	<b>168,854</b>	<b>220,563</b>	<b>90,061</b>	<b>262,245</b>	<b>352,306</b>	<b>141,770</b>	<b>431,099</b>	<b>572,869</b>

\*The numbers of persons employed in England and Wales and Ireland and in Scotland are exclusive of the estimated number of those engaged in "Other Cotton Manufactures" who are included only in the totals for the United Kingdom in order to avoid the possible disclosure of particulars relating to certain firms.



## Woolen and Worsted Factories.

TABLE I. — OUTPUT.

NOTE. — *The figures in this table are given to the nearest thousand in each case. Amounts lower than five hundred are not shown.*

	England and Wales.	Scotland.	Ireland.	United Kingdom.
	Quantity.			
Wool, sorted, blended, etc. :	<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>
Sheep or lamb's wool . . . . .	28,909,000	614,000	79,000	29,602,000
Other sorts . . . . .	8,352,000	• . . . .	• . . . .	8,352,000
Woolen rags, carbonized, dyed, etc. . . . .	*	*	• . . . .	51,192,000
Tops . . . . .	188,745,000	24,000	• . . . .	188,769,000
Noils . . . . .	31,370,000	219,000	• . . . .	31,589,000
Flocks . . . . .	*	*	*	26,947,000
Waste . . . . .	31,503,000	2,476,000	9,000	33,988,000
Shoddy, mungo, etc. . . . .	137,042,000	14,000	• . . . .	137,056,000
Yarns (all wool or mixed with other materials) :				
Woolen (carded) . . . . .	51,660,000	10,222,000	343,000	62,225,000
Worsted (combed or carded) . . . . .	153,713,000	6,203,000	24,000	159,940,000
Alpaca and mohair . . . . .	20,316,000	• . . . .	• . . . .	20,316,000
Other hair or wool . . . . .	*	*	• . . . .	10,942,000
Woolen tissues (all wool or mixed with other materials, including mixtures of woolen and worsted yarns) :	<i>Yards.</i>	<i>Yards.</i>	<i>Yards.</i>	<i>Yards.</i>
Broad . . . . .	131,031,000	10,305,000	1,910,000	143,246,000
Narrow . . . . .	28,168,000	10,894,000	1,288,000	40,350,000
Worsted tissues (all wool or mixed with other materials) :				
Worsted coatings and trouserings of all kinds :				
Broad . . . . .	50,109,000	832,000	163,000	51,104,000
Narrow . . . . .	7,219,000	216,000	• . . . .	7,435,000
Worsted stuffs, dress goods, linings, lastings, etc. . . . .	141,956,000	811,000	85,000	142,852,000
Damasks, tapestry, and other furniture stuffs . . . . .	*	*	*	2,608,000
Wool and mohair plushes . . . . .	*	*	• . . . .	3,077,000
Flannels and delaines . . . . .	48,838,000	575,000	336,000	49,749,000
Carpets (not being rugs) . . . . .	18,451,000	7,708,000	• . . . .	26,159,000
Rugs other than } returned in square yards,	<i>Sq. Yds.</i>	<i>Sq. Yds.</i>	<i>Sq. Yds.</i>	<i>Sq. Yds.</i>
traveling } . . . . .	2,882,000	961,000	16,000	3,859,000
rugs } returned by number . . . . .	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>
	178,000	• . . . .	• . . . .	178,000
Blankets . . . . .	<i>Pairs.</i>	<i>Pairs.</i>	<i>Pairs.</i>	<i>Pairs.</i>
	2,826,000	276,000	13,000	3,115,000
Shawls . . . . .	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>
	408,000	877,000	5,000	1,290,000
Coverlets, traveling rugs or wrappers . . . . .	733,000	81,000	14,000	828,000
Wool and mohair braids, laces, and other small wares. . . . .				
Manufactures of wool and worsted, unenumerated. . . . .	}	(Re	corded by	value on ly.)
All other products.				

\* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole.

TABLE I.—OUTPUT.—*Continued.*

	England and Wales.	Scotland.	Ireland.	United Kingdom.
	Value.			
Wool, sorted, blended, etc.:	£	£	£	£
Sheep or lamb's wool . . . . .	375,000	8,000	4,000	387,000
Other sorts . . . . .	261,000	*	*	261,000
Woolen rags, carbonized, dyed, etc. . . . .	*	*	*	418,000
Tops . . . . .	2,694,000	1,000	*	2,695,000
Noils . . . . .	599,000	9,000	*	608,000
Flocks . . . . .	*	*	*	142,000
Waste . . . . .	629,000	30,000	*	659,000
Shoddy, mungo, etc. . . . .	1,798,000	*	*	1,798,000
Yarns (all wool or mixed with other materials):				
Woolen (carded) . . . . .	1,618,000	779,000	17,000	2,414,000
Worsted (combed or carded) . . . . .	15,491,000	565,000	2,000	16,058,000
Alpaca and mohair . . . . .	2,362,000	*	*	2,362,000
Other hair or wool . . . . .	*	*	*	406,000
Woolen tissues (all wool or mixed with other materials, including mixtures of woolen or worsted yarns):				
Broad . . . . .	12,066,000	2,336,000	356,000	14,758,000
Narrow . . . . .	1,181,000	447,000	122,000	1,750,000
Worsted tissues (all wool or mixed with other materials):				
Worsted coatings and trouserings of all kinds:				
Broad . . . . .	8,086,000	236,000	48,000	8,370,000
Narrow . . . . .	688,000	36,000	*	724,000
Worsted stuffs, dress goods, linings, lastings, etc. . . . .	6,525,000	90,000	9,000	6,624,000
Damasks, tapestry, and other furniture stuffs . . . . .	*	*	*	247,000
Wool and mohair plushes . . . . .	*	*	*	330,000
Flannels and delaines . . . . .	1,719,000	20,000	14,000	1,753,000
Carpets (not being rugs) . . . . .	2,398,000	939,000	*	3,337,000
Rugs other than } returned in square yards, traveling }	456,000	147,000	3,000	606,000
rugs } returned by numbers . . . . .	41,000	*	*	41,000
Blankets . . . . .	1,298,000	142,000	10,000	1,450,000
Shawls . . . . .	81,000	144,000	2,000	227,000
Coverlets, traveling rugs or wrappers . . . . .	180,000	49,000	7,000	236,000
Wool and mohair braids, laces, and other small wares . . . . .	107,000	*	*	107,000
Manufactures of wool and worsted unenumerated . . . . .	767,000	20,000	2,000	789,000
All other products . . . . .	745,000	24,000	5,000	774,000
Grand total . . . . .	63,652,000	6,072,000	607,000	70,331,000

\*In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole.

# 424 NATIONAL ASSOCIATION OF WOOL MANUFACTURERS.

## Woolen and Worsted Factories. — *Continued.*

TABLE II. — COST OF MATERIALS USED AND AMOUNT PAYABLE TO OTHER FIRMS FOR WORK GIVEN OUT TO THEM, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE. — *The figures in this table are given to the nearest thousand in each case.*

	England and Wales.	Scotland.	Ireland.	United Kingdom.
I.	£	£	£	£
Cost of materials used . . . . .	44,763,000	4,079,000	399,000	49,241,000
Amount payable to other firms for work given out to them . . . . .	1,528,000	106,000	4,000	1,638,000
Total . . . . .	46,291,000	4,185,000	403,000	50,879,000
II.				
Value of output:				
Goods made for sale . . . . .	61,851,000*	6,015,000	605,000*	68,471,000*
Work done on commission . . . . .	1,801,000	57,000	2,000	1,860,000
Total . . . . .	63,652,000	6,072,000	607,000	70,331,000
III.				
Value of output <i>less</i> cost of materials used and amount payable to other firms for work given out to them . . . . .	17,361,000	1,887,000	204,000	19,452,000

\* Including a small amount of work done on commission.

TABLE III. — PERSONS EMPLOYED.

*Average Numbers at Work on the last Wednesdays of January, April, July, and October.*

	Males.			Females.			Males and Females.		
	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.
ENGLAND AND WALES:									
Wage-earners . . . . .	19,366	71,713	91,079	30,359	97,214	127,573	49,725	168,927	218,652
Salaried persons . . . . .	592	6,963	7,555	43	234	277	635	7,197	7,832
Total . . . . .	19,958	78,676	98,634	30,402	97,448	127,850	50,360	176,124	226,484
SCOTLAND:									
Wage-earners . . . . .	1,660	8,519	10,179	3,354	12,560	15,914	5,014	21,079	26,093
Salaried persons . . . . .	86	888	984	16	99	115	102	997	1,099
Total . . . . .	1,746	9,417	11,163	3,370	12,659	16,029	5,116	22,076	27,192
IRELAND:									
Wage-earners . . . . .	244	1,247	1,491	314	1,370	1,684	558	2,617	3,175
Salaried persons . . . . .	5	145	150	1	15	16	6	160	166
Total . . . . .	249	1,392	1,641	315	1,385	1,700	564	2,777	3,341
UNITED KINGDOM:									
Wage-earners . . . . .	21,270	81,479	102,749	34,027	111,144	145,171	55,297	192,623	247,920
Salaried persons . . . . .	683	8,006	8,689	60	348	408	743	8,354	9,097
Total . . . . .	21,953	89,485	111,438	34,087	111,492	145,579	56,040	200,977	257,017

## JAPAN'S CHANGING COMMERCE.

## THE DEVELOPMENT OF THE TEXTILE INDUSTRY IN THE ISLAND KINGDOM AND GROWTH OF EXPORTS.

THE statistics of Japan's imports for the first six months of 1910 do not show any great increase in anticipation of the higher duties of the new Japanese tariff. As the new rates do not go into effect until July 17, 1911, there is still ample opportunity for an inrush of goods under the prevailing conventional rates, and the last half of 1910 and the first six months of 1911 are likely to witness an abnormal increase of imports. It is expected that the increase will be especially marked in regard to cotton and woolen fabrics upon which the new tariff imposes a much higher duty. The present rate of duty on woolen fabrics is 5 per cent; under the new law it will be 25 per cent, a difference in rates which offers strong inducements to stock up heavily with goods before the new law takes effect. To aid increased imports of woolen goods there is also a growing demand for goods of this material which the home manufacturers are not yet in a position to meet. The increase in the duty on cotton goods is not so large and importations will be affected less than in woolens. On all but the finer grades of cotton goods, Japanese manufacturers at present supply the local demand and are actively engaged in preparation for an expansion of exports, to the accomplishment of which result the fact that raw cotton remains on the free list will undoubtedly contribute.

The total commerce of Japan for the first six months of 1910 shows an increase of \$26,000,000, increased imports accounting for \$15,000,000 and increased exports amounting to \$11,000,000. The increase of imports is more apparent than real, as it occurs chiefly in goods classed as raw material and is accounted for by the higher prices of cotton, the quantity of raw cotton imported not having increased to any great extent. The increased imports of wool account for \$1,000,000 of the enlarged imports of raw materials. Other items which contribute to the increase of imports are oils and petroleum, which show a gain of \$1,307,528. It is claimed that low charter rates and improved marketing conditions in Japan account for a large part of this increase.

The increase of exports is the vital feature of the exhibit and confirms the views becoming generally accepted in regard to the changing conditions of Japan's industrial life. Japan's tendency

in the direction of importing less and exporting more of manufactured or partially manufactured articles is illustrated by the item of cotton yarns, the imports of which, during the six months ended June 30, 1910, were \$55,163, while the exports were \$11,799,709, as compared with \$327,424 imports and \$7,411,988 exports in the corresponding period of 1909. In straw plaits and chip braid, used in the manufacture of straw hats, Japan's exports, chiefly to the United States, England, and Germany, show an increase of \$1,000,000 for the first half of 1910. Cotton yarns and chip braid are classed as partially manufactured. In the articles designated as wholly manufactured Japan shows an increase of over \$4,000,000 for the first six months of 1910. The bulk of this increase in exports is made up of silk handkerchiefs, cotton tissues, and cotton underwear. The export of raw silk continues at a rate of about \$1,000,000 a week, as in 1909. Recent figures in relation to the trade of the United Kingdom with foreign countries throw an interesting side light upon Japan's changing commerce and indicate where some of her increasing exports have found a market. Japanese exports to the United Kingdom for the year 1909 increased by nearly £700,000, and the United Kingdom sold to Japan that year fewer goods by one and a half million pounds in value than during the previous year. The United Kingdom's best year of exports to Japan was in 1906, when they reached the large sum of £13,115,330. Since then the total has steadily declined, and at the end of 1909 it was only £8,618,821.

The following table, taken from a report by Consul General Thomas Sammons, of Yokohama, on Japan's changing foreign trade, is an index to prevailing commercial conditions in Japan, showing the advance in the importation of raw materials and a steady increase in the exportation of wholly or partially manufactured goods :

Classification.	Imports.		Exports.	
	Six Months, 1909.	Six Months, 1910.	Six Months, 1909.	Six Months, 1910.
Raw materials . . . . .	\$50,987,493	\$66,410,641	\$8,992,000	\$9,902,260
Partially manufactured . . . . .	22,571,210	22,817,641	42,782,838	48,973,310
Wholly manufactured . . . . .	23,891,329	23,288,999	29,544,845	33,868,342
Total . . . . .	\$97,450,032	\$112,517,281	\$81,319,683	\$92,743,912



The trade of Osaka, whose manufacturing interests have developed so rapidly that the city is often referred to as "the Manchester of Japan," clearly indicates the same rapidly changing commercial conditions. Reviewing the commerce of Osaka for 1909, the British Board of Trade Reports says:

Since the year 1907 the value of the imports into Osaka of textile goods has fallen from £117,129 to £27,016, a decline of £90,113.

This large decline is undoubtedly due to some extent to the development which has taken place in the weaving industry in Japan during the last few years. Since 1905 the number of looms worked by the various cotton manufacturing companies in Japan has very nearly doubled, the figures for each year being as follows:

On June 30 —	No. of cotton looms.
1905 .....	6,443
1906 .....	9,136
1907 .....	9,626
1908 .....	10,379
1909 .....	12,176

Of the 12,176 looms in Japan on June 30, 1909, 5,888 were in Osaka, which is thus an important center of the weaving industry. The goods principally made are gray shirting and sheeting, cotton drills, T-cloths, etc. There is a considerable export.

Cotton yarn is by far the most valuable of all the articles exported from Osaka. In 1909 the total value of the exports of this commodity was £926,855, or over 19 per cent of the total exports of the port. These figures show an increase of £221,356, as compared with those for 1908. Nearly 92 per cent of the yarn is sent to China, the remainder principally to Corea and Hong Kong. Both China and Corea took considerably larger quantities in 1909 than in 1908; the export to Hong Kong on the other hand declined.

Mail reports state that Japanese goods made in imitation of American cloths are being bought. They are materially lower than the American grade in every way, but they have the advantage of being offered at a price the natives can pay.

About 87 per cent of the yarn exported from Osaka during the year 1909 was of counts of 20 and under, the actual figures being as follows:

	Pounds.	
Counts of 20 and under.....	22,918,503	£764,773
Counts over 20 .....	3,611,620	162,082
Total.....	26,530,123	£926,855

The total number of cotton spindles working in all the mills in Japan in December, 1909, was 1,707,631 (of which 43,867 were

mule spindles). Of this number 648,743, or about 38 per cent, were in Osaka Prefecture, the numbers working in the principal mills and their branches being ring spindles 639,420, mule spindles 9,323.

The number of bales of cotton yarn produced by the spinning companies in the Osaka Prefecture during the year ended June 30, 1909, was 340,850, and the average count 23.9. The total number of bales produced in the whole of Japan during the same period was 919,673. Of this quantity, 191,425 bales or about 20 per cent, were exported. The proportion of yarn made in Osaka which is exported, however, is somewhat higher, being more than 30 per cent. Considerable quantities are exported through Kobe.

The making of cotton hosiery, or "meriyasu," as it is called, is one of the principal industries of Osaka. The trade has grown enormously within the last few years, and Japanese goods are now found in large quantities in all the markets of the Far East. It is calculated that British India takes about 70 per cent of the total export of cotton hosiery from Japan. As in the case of many other goods the principal port of export is Kobe, though the headquarters of the industry are in Osaka.

During the first half of the year 1909 the trade was in a fairly flourishing condition and orders were numerous. In the great fire which occurred in the city at the end of July, however, 120 factories are said to have been destroyed, and it was estimated that the quantity of goods available for export would fall short of the quantity exported during 1908 by 20 per cent, as many of the makers were quite unable to fulfil their contracts. In spite, however, of this check to the industry the final figures for the year 1909 show an increase in the value of the exports from the whole country, as compared with 1908, of over £45,000, and the industry is now in a most flourishing condition. The chief competitors of the Japanese in this respect are German, British and Spanish manufacturers. The trade in Europe, however, has been suffering recently from the rise in the price of cotton and yarn, with the consequent rise in the price of the manufactured goods.

In Japan, on the other hand, the spinning mills held during the latter part of the year 1909 considerable supplies of cotton which they had bought when the market was low; and as the demand for yarn was not very brisk, the hosiery factories had at their disposal a plentiful supply of comparatively cheap yarn. The excellent harvest in India, too, favorably affected the demand for goods. The exports of cotton undershirts and drawers (knitted) from Japan during the seven months ended July, 1910, were valued at about £280,000, as compared with about £150,000 in the corresponding period of 1909. The yarn used in Japan is chiefly of count 16 to 20, and there has been a brisk demand for the coarser counts of yarn, as all the factories are now working at full strength. The principal factors which contribute to the

prosperity of the industry are cheap machinery and a plentiful supply of cheap labor. Most of the machines used in the Osaka factories are made in the city from American models, the prices being very much lower than for imported machines. American sewing machines are largely used for finishing the more expensive qualities of underwear.

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## TEXTILES AND THE PROGRESS OF INVENTION.

*(From the Canadian Textile Journal.)*

It is interesting to observe how each new invention that attains general use makes a fresh demand on the textile trades. The telephone and electric light brought into demand special lines of tapes and yarns for braiding and wire-covering; the automobile required new rugs, waterproof fabrics, canvas, and other textiles for the cars, and the aeroplane has already created an important demand for a fabric that gives a fresh test of the skill of the spinner and weaver. A cloth that will bear a machine and a man in it aloft on the air in rain or shine cannot be made from cotton waste, or even from the products of the shoddy centers from which the "pure-wool" goods of the cheap clothing trade are derived. The cloth for the wings of a Farman biplane is cheap at \$100, and other types of machines cost more to equip.

Regarding the qualities requisite for fabrics for aviation, the "Textile Mercury" of Manchester, makes the following interesting comments:

We all believe patriotically that England will be first before long, alike in designs and in engines, and we resolutely refuse to admit that she will be in any sense behindhand in the production and adaptation of fabrics suited for aviation purposes. Patently, the provision of these fabrics is a business worth thinking about — not so much because aeroplanes will remarkably increase the consumption of wing-canvas for a few years to come, as because they will localize the demand for particular sorts of cloth, answering broadly to one specification.

Some thousands of aeroplanes have already been made, and are in more or less experimental use. All the popular types carry a fair spread of canvas, although since the Bleriot Channel flight there has been a reaction in favor of small-winged air craft. The diminution in size has been accompanied by a growing sense of the need for stability, and the modern aeroplane uses canvas of some sort over twice its superficies. There are

two thicknesses of fabric — one above and one below the supporting ribs of each plane. The real matter is less the quantity than the qualities of the fabric used. The qualities can briefly be summarized: There must be strength, particularly against splitting in either direction; rigidity, so that in a long flight the aviator's canvas shall not sag; repellency of water, so that the planes shall not gain weight unduly from aerial moisture, and shall not rot in case they have to be placed in storage in their moist state; density, so that the air shall not find its way through the fabric; and perhaps smoothness, in order to reduce aerial friction. The better the fabric answers these requirements and the more it combines with them lightness of weight, the more suitable it should theoretically be for the special purpose intended.

The requirements are likely to be more stringent rather than less stringent in the future. It is inevitable that engine-power should increase, and that designers should continually seek to devise machines for carrying heavier weights and facing stronger gales than can any aeroplane that is flying at the time being. Again, there is a by no means improbable chance of the perfection of new types of machine — helicopters or orthopters, for instance — which may throw heavier burdens on the woven parts. Thus it is for the machine of the future rather than for that of the present that manufacturers need to provide.

Ultimately, it may be supposed that flying by motor will have at least as profound an influence on the textile trade as road-traveling by motor has had already. The influence of the motor car has extended far beyond the demand for tire and hood canvas, and for the viscose-coated cotton cloth which forms the imitation leather seating of most cars. The car has been directly responsible for a large sale of veils and of dust-coats, it has unsettled feminine ideas as to the amount of elaboration desirable in out-of-door dress, and directly and by force of suggestion it has left its marks on the dress of nearly every one of us. The flying art may well make similar inroads into preconceived ideas of propriety, and the demand for wing fabrics and for windproof garments for aeronauts is, perhaps, one of the least of the changes implied by the opening of this new means of locomotion. There is plenty of room, then, for those whose forte is the intelligent anticipation of impending changes, and plenty of promise of reward for those whose ingenuity is directed best.



## A WEEK ON AN AUSTRALIAN SHEEP STATION.

BUT alas, what a week! They call it the wettest year since '93, and this was the wettest week in it. The head station is three miles from the railway. We traveled the thirty miles in the train in about two hours and a half. Why go quicker? As the eminent Under Secretary explained to me a few weeks ago, the railways of Queensland are there for the purpose of conducting people on to the land; there is no desperate hurry about that, and they should not be in any hurry to come off the land again. A pair of Shetland ponies in a buggy, and a pair of splendid black horses in a high American wagon soon have us at our journey's end. The head station, as to buildings, is only very little smaller than the township we left by the railway. A long line of verandahed cottages leads up to the house. These comprise the dwellings of the head stockman and the gardener, the bachelor's quarters, the School of Arts (rather a high-sounding name for a small, well-equipped library), the butcher's shop, the blacksmith's shop, the store, the harness room, buggy sheds, stables, etc.; behind these more men's huts, and the horse yards. The house itself is a long, low, rambling bungalow, that has grown into something resembling a quadrangle. The main part stands just as it was built sixty years ago, the bark still clinging to the verandah posts. That was the time when there was no Toowoomba, and only a trifle of Brisbane. Men drove their flocks and herds up over the ranges from New South Wales, settled for a while, and sold out or passed on. When first this station came into the hands of its present owners, some fifty years ago, it consisted of 1,000 square miles, or 640,000 acres, and it carried 250,000 sheep, as well as horses and cattle. One hundred and fifty thousand acres were secured as freehold, and from time to time the Government resumed the remainder for selection as large grazing blocks. Now, the run consists only of a trifle of 90,000 acres, the owners having cut up the remainder into small farms of anything from 100 to 400 acres. These they sold at from 35s. to £4 or £5 an acre, on the following terms: For the first two years only 5 per cent interest on the purchase money is paid, so that the small farmer gets a fair start; after that, 5 per cent of the purchase money, together with interest on the remainder for three years; then 10 per cent of purchase money until it is paid off. Here, then, is the finest black soil, depth anything down to



20 feet, to be had for freehold farms, to be made to pay for themselves from the start.

I was riding around with the manager. "How long since you cut up these farms?" I asked.

"Five years ago," he answered, "and there is not a single man who has not paid up every penny due, so far."

"Of course, they must have some capital?"

"Oh, yes; one pound an acre is about the amount that will give a man a comfortable start. Of course, on 100 acres that amount would build him only a hut, not a house to begin with; but on the larger acreages a pound per acre will get him all the gear he wants, a few head of stock, and a good house to live in."

There you have it in a nutshell. A farm of, say, 400 acres — a large farm in England, and in many districts becoming a large farm out here — can be started for £400, and give a living while it is growing into freehold. I was glad that I did not ask any question about how these farmers were doing, for, without asking, I got the answer from the man on the land himself. We were making for home, riding along a road — which means just two chains in width of the land running between wire fences — when we overtook a man driving the inevitable high American wagon. The horses were ploughing along slowly through the heavy black mud. After greetings, the manager said, "It's a fine winter."

"My word" (this is the great Australian intensifier of speech), "My word, it's a great winter, Mr. —"

"How are the cows, how many are you milking?"

"They're fine; I've got fifteen now, and I've just turned 'em out for the rest of the winter, and I've got my check for my cream for the year — £146 I got; that's all right, isn't it?"

"You'll be getting some more cows, eh?"

"Yes, I'll get a few more, no more than I can manage myself, though. I might do with twenty altogether; no getting a man for me, Mr. —; he'd work for a few days, and then want to be off into the township to a dance or something, just at milking time; I know 'em."

"They're a bit uncertain, aren't they?"

"They're a holy terror, that's what they are."

We rode over two or three miles of timbered, stony ridges; even these carry fine fattening grasses, and we saw 60 or 70 splendid yearling and two-year-old draught horses and 200 fat bullocks ready for the market. But, for the most part, the Dar-

ling Downs country is made up of great black-soil plains, with here and there disconnected small ranges of hills or isolated kopjes; the word brings Africa to the mind, and, indeed, the Downs country strongly resembles parts of the Orange River Colony. About half a mile from the station we come to the wool-shed, a huge iron building nearly a hundred yards long, that next month will burst into its few weeks per year of usefulness. Sixty thousand sheep will be shorn, and out at the far door their wool will be loaded ready for the London or Sydney market. Shearers often make £8 to £9 a week, shearing at £1 a hundred. "Ringers," as the experts are called, make more. A little way from the shed stands a group of iron buildings known as the shearers' huts, very comfortable quarters for 40 men, with kitchen, dining-room, and bathrooms. Shearers live well, and a shearers' cook is a man who would get good wages for cooking anywhere in the world.

Standing near these buildings are some not quite so comfortable, namely, the "travelers' huts." And here we come to an Australian institution that is as old as the settling of Australia. All travelers are given a place to sleep in and a day's rations. This system has, of course, become abused, and many of these so-called travelers are merely "won't-works," who trudge from one station to another, sleeping dry and snugly, and drawing their day's rations with precise regularity. Of late years stations have refused to give meat, and only provide what are called "dry rations," viz.: flour, tea, and sugar. The manager told me that only the other day he went down to the travelers' huts and found the men gathered around a good fire. Some of them had been there two or three days. There was something that wanted doing in a hurry, and he offered the whole ten of them temporary work. It was refused by each and all of them. They were moved on. The system that was necessary in the old days, when long distances had to be covered by men without money who were genuinely looking for work or making their way to a certainty of it, has degenerated into a severe tax upon the squatter, and encouragement to the loafer to go on loafing. Already many managers and owners refuse rations as a regular thing, using their own discrimination as to the dole. It is one of the evils that will be killed by closer settlement.

The splendidly wet winter resolutely kept on being wet, so that I saw little or nothing of the sheep and the working of

them. There is nothing of the old roughing it out on the station nowadays on the Darling Downs; you must go hundreds of miles west for that. Everything is up-to-date and comfortable. Telephone, tennis and tea parties, changing your clothes for dinner, bridge after dinner, the daily newspaper, and all the little things are there. The big things are there, too, the big spaces, the plains, and the hills that throw the dazzling glory of the sunset one to another like giants slowly playing with some gorgeous and gigantic toy. — *The Yorkshire Post*.

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### THE PACKING OF WOOLS.

THE following comment by the International Vegetable Fiber Committee on the packing of wool was published in the "Yorkshire Post":

During the past twelve months there has been considerable improvement in the condition and packing of wools offered in the London market. Buyers in the Colonial markets also report that in Melbourne and Geelong satisfactory advance has been noted, and many of the larger growers in Victoria, New Zealand, and especially in South Africa, have responded in a most gratifying manner. Unfortunately in New South Wales, South Australia, and West Australia, there has not yet been much response to the reasonable request that this valuable commodity should be properly packed.

The evil which arises from the use of cheap jute wool packs is one which involves serious depreciation to the raw wool, and so long as it remains the fearful loss of labor, time, and money which is incurred by the manufacturers will ultimately and always be a charge on the value of the raw material. Many spinners and manufacturers (both Continental and English) are more keenly alive than ever to the seriousness of this evil, and many pledge themselves to give preference in future to wools which are carefully packed in bales which have been tested and recommended by the Committee. There have been two classes of wool packs recommended not only on account of freedom from loose fibers (which is the main consideration), but also because of their moderate cost:

(1.) A paper-lined pack which quite obviates the danger if thoroughly and securely lined. These are specially suitable for scoured wools and for the finest merino greasies, and they can be procured at an approximate cost of 3s. 9d. per bag f.o.b. London, subject to market variations.

(2.) A close-woven, strong, unlined pack, made of the best material.

The Committee desire to gratefully acknowledge the willing and generous coöperation of some of the large Colonial growers. They desire also to state that in their opinion a steadily increasing preference will be shown by consumers for clips that are packed according to the recommendations which have been issued, and that in times of quieter and less excited demand this preference will be much more marked than up to now.

The French Association of spinners are canvassing these and kindred questions very keenly, and have invited this Committee to coöperate in a Conference which will take place next year in Roubaix, to consider what further steps can be taken in these matters.

The Committee note with satisfaction the improvements which have been made in the London warehouses for dealing with loose fiber, and for the more careful cutting of bales. It is hoped that the efforts of the warehouse-keepers will continue to secure the assistance and coöperation of buyers, especially of the younger section, who may not be quite cognizant of the importance of these efforts.

The report is signed on behalf of the Committee by Mr. J. E. Fawcett, Chairman, and Mr. H. Dawson, Convener.

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### RUSSIAN WOOLS.

SOCIAL and political changes are having their effect upon the wool product of that country — a fact of interest to the wool trade of the United States. Consul Grout, at Odessa, states, in the "Daily Consular and Trade Reports":

The progressive passing over of vast estates, upon which were formerly large herds of sheep, into the hands of peasants, has resulted in the steady reduction of the flocks in European Russia.

These estates were thus cut up into small holdings, this operation being greatly aided by the Peasant's Bank. This factor and the ever-increasing rate of land rent have effected a reduction which has not been met by any possible increase in the sheep stocks of Asiatic Russia. As a result there is a growing falling off in the amount of wool produced in the country. During the year 1910 there will be recorded quite a reduction in quantity produced; and, if it is taken into account that the wool produced will average dirtier, then the falling off, as compared with last year's product, will become more significant. The quality of the wool is supposed to be fair, and there has not been any very palpable loss of sheep during the hibernating season of 1909-10. The demand for wool is good and average quality of washed merino sells at from \$22.15 to \$23.18 per poond of 36

pounds. The most common rough wool sells for from \$2.58 to \$3.61 per poood. How great is the proportion of dust, dirt, and other foreign matter, taken together with the natural grease of the wool, cannot be perceived from the small outcome of clean wool after washing, where the loss in weight is from 50 per cent to fully 80 per cent in some cases. Hence out of 36 pounds only 10 to 18 or 19 pounds of fully washed wool can be realized.

### TEXTILES IN INDIA.

INDIA, as is well known, has an extensive cotton manufacturing industry, but the native wool manufacture in that country is almost non-existent. Consul-General Michael, at Calcutta, in his enumeration of the factories worked by mechanical power in India — 2,473 in all — divides them as follows :

	Number.
Cotton mills, character of gins and presses.....	1,332
Jute mills and presses.....	185
Rice mills.....	200
Sawmills.....	105
Iron and brass foundries.....	83
Flour mills.....	34
Breweries.....	24
Cotton mills.....	232
Looms.....	74,084
Spindles.....	5,945,122
Jute mills.....	45
Looms in jute mills.....	24,800
Paper mills.....	9
Woolen mills.....	5
Railway mileage.....	30,576

### IRISH PEASANT MANUFACTURES.

IN Ireland, as in Scotland, hand-woven fabrics of ancient fame still survive against the severe competition of modern machinery. The Irish peasants know how to dye their hand-woven cloths with lichens and plants, which give a pleasing, durable color, and these fabrics are still appreciated at home and abroad for their characteristic qualities. They look well and wear well. Deputy Consul J. S. Armstrong, at Cork, makes these interesting comments on the Irish industry :

The centers of hand weaving and spinning are in Donegal, Mayo, Connemara, and Kerry, where there is abundant mountain grazing for sheep with luxuriant wool and where labor is super-



abundant. The leading center, however, is Donegal, and it is estimated that \$50,000 a year is paid to the peasants of the impoverished and barren districts of Donegal for their homespun cloths. The cloth is usually sold at country fairs, where it is brought in large rolls or webs about twenty-eight inches wide. As a loom of the necessary size could not be accommodated in the tiny cottages occupied by the peasants, the homespun cloths are not made in double widths.

Each district in Ireland produces cloth of a distinct character. In North Donegal the cloth is heavy, well-woven, substantial, and generally dyed in dark colors with stripes and checks. The market for this is usually a retail one.

The products of Castlebar resemble those of North Donegal, but are somewhat brighter in color. In Connemara and other parts of County Galway there is a peculiar sort of flannel of very durable quality. It is usually dyed in red, dark blue, or black; and the Galway peasant women present an odd but vividly picturesque appearance clad in hoods and cloaks made of this peculiar material. The Kerry homespuns are well made, but poor in color and pattern, vegetable dyes being seldom used.

In each of the cases which have been mentioned the cloth is produced for local use, and only the overflow reaches the outside market, but in South Donegal the case is different, as there is an extensive homespun industry there, carried on specially for the wholesale market and conducted upon business principles. There is a hereditary talent for coloring the cloths prevalent among the Donegal peasantry, and the cloths which come from this district are considered as beautiful as any woolen fabrics produced anywhere in Europe. There are no statistics available as to the importance of this industry.

Hand knitting is still able to compete against mechanical imitations and is a means of livelihood to many peasants in the isolated regions of the country. The wild district of Kincasslough, in County Donegal, is an important center. The Arran industry of Mayo produces some very fine specimens.

Hand embroidery, as it is done in some parts of Ireland, cannot be satisfactorily imitated by machinery, and is a cottage industry of importance. Irish art needlework is of the best quality and will bear favorable comparison with any produced in Europe.

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### FOR BETTER ROADS.

IN a report from the Committee on Agriculture to the Sixty-First Congress the passage was recommended of the Senate good roads bill, providing for an appropriation of \$500,000, to be supplemented by an equal sum from the States or counties in which

the rural routes selected for improvement are located, the object being to enlist the services of the national Government in a definite effort to improve the roadways of the country. The appropriation last year for rural free deliveries amounted to over thirty-five millions of dollars, and it is believed that with better roads a large saving of expense in rural deliveries could be made. Thus it appears that the Government has a definite interest in the improvement of the roads and a positive reason for coöperating with local communities in the expense involved.

Whatever may be the best method of accomplishing actual road improvement, there can be no question of the advisability of such a work. The effect upon the prosperity of France of its splendid system of roads, completed at a cost of \$612,775,000, is indicated in a report by Francis B. Loomis, commercial agent at St. Etienne :

The road system of France has been of far greater value to the country as a means of raising the value of lands and of putting the small peasant proprietors in easy communication with their markets than have the railways. It is the opinion of well-informed Frenchmen who have made a practical study of economic problems that the superb roads of France have been one of the most steady and potent contributions to the material development and marvelous financial elasticity of the country. The far-reaching and splendidly maintained road system has distinctly favored the success of the small landed proprietors, and in their prosperity and in the ensuing distribution of wealth lies the key to the secret of the wonderful financial vitality and solid prosperity of the French nation.

The cost of hauling produce to market over the improved European roads is from seven cents to ten cents per ton mile, while the average cost of hauling over American roads is twenty-three cents per ton mile. The average haul from the farm to the shipping point is about nine and a half miles, and the total cost of hauling our huge tonnage is reckoned at over \$600,000,000. Whatever would reduce this needless expense and wasted labor would be a boon to the entire country and would contribute materially to lower cost of production.

Obviously the agricultural communities favor this bill, for it means a welcome lightening of their labors, increased accessibility of their farms and enhanced land values, but the general benefits of this good roads movement are not confined to the farming

interests, but would reach out in varying degrees to all of our citizens. For this reason an effort is being made to arouse the interest of Congress in the passage of the good roads bill, and all who are interested are urged to write to their Senators in favor of the enactment of this measure into law.

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### COMPENSATION FOR INDUSTRIAL ACCIDENTS.

THE Massachusetts Commission on Compensation for Industrial Accidents, appointed by Governor Draper last June and consisting of Messrs. James A. Lowell, Chairman, Amos T. Saunders, Secretary, Magnus W. Alexander, Henry Howard, and Joseph A. Parks, with Carroll W. Doten as Chief Investigator, organized early in July for the purpose of carrying out the instructions, embodied in a Resolve passed by the General Court June 6, which were as follows:

The public good requires a change in the present system of determining the compensation of employees for injuries sustained in industrial accidents, and the Commonwealth ought to provide different and more equitable relief. . . . The Commission shall investigate the effect of the present laws relating to the liability of employers for injuries received by employees in the course of their employment; shall investigate other laws and systems in operation in other States and countries; shall correspond or confer with committees and commissions in other States, considering the same subject; and shall draft an act for the compensation of employees for industrial accidents. . . . The Commission shall report in print the draft of an act and a compilation of the data and statistics and such other information as the Commission may be possessed of as a result of its investigation and study on or before the second Wednesday in January, 1911.

Pursuant of these instructions the Commission has been holding regular weekly meetings during the summer and has made a careful study of the systems in use in other States and countries and has started several lines of statistical investigation to obtain data in regard to the number and character of accidents in the Commonwealth, not possessed by any regular State bureau or commission.

The Commission is now holding public hearings in various parts of the State, to enable employers, employees, and others

interested in this matter to present their views and to furnish such information as they may possess for the use of the Commission. The first of these hearings was held in the State House, Boston, on September 29.

Other hearings were arranged as follows: Lowell, October 7; Springfield, October 14; Pittsfield, October 15; Fall River, October 27; and New Bedford, October 28. It is probable that hearings will be held in other cities in the Commonwealth where there is a sufficient demand for them. It is also likely that subsequent hearings will be held in Boston and elsewhere as soon as the Commission has prepared the draft of a tentative bill, in order to enable interested parties to make definite suggestions and criticisms.

The Commission has realized from the start that the most serious objection to the passage of a compensation act in this State would be the possible handicap which it might impose upon the industries of the State in competition with those of other States not having such advanced legislation. While the experience of other countries does not seem to warrant the fears entertained in regard to this matter, it has seemed desirable to secure as high a degree of uniformity as possible in the legislation likely to be enacted in the several States now having commissions at work upon this subject. The Commission has already attended two conferences with commissions of other States and is engaged at present in making arrangements for another conference at which it is hoped the seven States having commissions will all be represented. This plan seems to meet with the approval of the several commissions, and such a meeting is likely to be held early in November. If Massachusetts, New York, New Jersey, Ohio, Illinois, Wisconsin, and Minnesota can agree upon substantially the same form of legislation, there is no doubt that the fear of interstate competition will be largely removed and that other States will rapidly fall in line.

## From Press and Platform.

### "TWENTY CENTS A DAY!"

I VISITED a hosiery mill up in Winsted last week, with 400 or 500 men and women employed there, well dressed and neat in every way. I was told they were earning anywhere from \$1.50 to \$3 a day in the factory. I wish it was more, but I am telling you the facts just as they are. I have seen not thousands, but there are thousands; I have seen any number of women in Japan working in cotton mills at 8 cents a day, double shift, day and night, two crews, the women at 8 cents and the men at 16 cents, and they live on rice. The doctor and I employed a man by the name of Yushada, a gentleman, as our courier. We were a month in Japan. How much did we pay him? \$1.25 a day, and he boarded himself. I said to him, "Mr. Yushada, why don't you come to the hotel with us?" "Oh," he said, "I live in the Japanese annex." "What do you eat if I may ask?" "Rice; on fête days I have a little dried fish." He had saved over \$2,000 on that kind of living.

I went in to Jeshuran & Co.'s factory in Venice, and bought some lace. I like it, I have a fad for it. I cannot afford an automobile, I can occasionally afford to buy a little luxury of that kind. I bought a piece of lace and I asked the proprietor how much does the girl get that makes this. "Twelve cents a day. Beautiful Venice point lace. There are 5,000 of them working in Venice making lace. I went into a factory in Brussels and I bought a beautiful lace collar, a perfect dream of art, as fine a thing as I ever saw. As I came down the stairs out to the door, it was early in the morning, before we had had our breakfast, the manager of the Royal Lace Factory came in and the girl told her what I had bought. Turning to me she said, "You need not have any anxiety about that being duplicated." "Why?" I asked. "The woman who made that worked on it two years, went blind and died." "How much did you pay her for the work on it?" "Twenty cents a day," she said. I was sorry I had bought it — 20 cents a day!

I was riding down through Oxford in England one day in a



cab, and a hale and hearty man sat on the seat in front of me. 'I said to him, "Do you own this cab?" He answered, "I do not." "What do you do?" "I hire it. I get all the work I can and I get \$2.50 a week for driving it. I am up from seven in the morning until ten at night." "Have you a family?" "I have a family of five." "I don't see how you live," said I. "Well," said he, "my daughter is a linen weaver and she gets \$2.25 per week, and my son is a printer at \$2.50 a week." "But," said I, "that is only \$7.25 per week for five. What are you going to do when you get old and cannot do this work?" He was then 55. "Do?" said he, "do? Why I am going to the poor-house, of course. What do you suppose I have been paying poor rates for all these years?"

I have seen girls working at the wet linen looms in the York Street Linen Mills in Belfast, Ireland, at \$2.50 per week, standing barefooted in the water and with their skirts wet through from the stream of water pouring on the fabric while it was being woven.

I see that Judge Baldwin last night complained about the cost of a good suit, and that he could buy a coat in Vienna for \$3.20 which cost him \$15 here. I have bought clothes all over the world. I never have bought clothes so satisfactory all around as right here in New York. The cloth in this suit which I have on cost me \$4.37½ at the Norfolk Mills, and it cost me \$25 to have it made up. I was glad to pay an American mechanic \$25 to make it up, glad to have that privilege. If Mr. Baldwin wants to buy a raincoat in Vienna at \$3.20 he is welcome to do so. It is not my kind of Americanism, to be envious of conditions which make such things possible. — *From a speech by Congressman E. J. Hill of Connecticut.*

#### SCHEDULE K.

THE magazines of the country attack the wool schedule of the Payne bill, giving in a graphic way what they call the "history of Schedule K." But do they appeal to your reason? Not at all. They labor through a long and fervid story of something cunning and improper upon the part of the manufacturers of wool in getting the present rates on wool incorporated into a former tariff bill. This schedule in the Payne bill, carrying the same duties, they do not want the voter to consider with a mind

open and free from prejudice for fear that he may reach a right conclusion and approve of the law. There are very few sheep in my district. During the special session I was not written to by a single farmer of my district upon the subject of the wool schedules. I believed when voting upon the Payne bill that it was for the best interests of all the country; not only to encourage the protection of American wool, but I went still further in my belief, that we ought to do everything in our power to make America independent of all the world in the matter of woollens. It was part of Roosevelt's policy, and as such, the present administration is doing everything in its power to enlarge and strengthen the American Navy. I sincerely believe that it is more important to have our country in a position where it can clothe its own soldiers and its own sailors, clothe its own people through a long and severe winter, than to have battleships on the sea. I cannot conceive of anything that would compel us to capitulate so quickly if attacked by the combined nations of the world as would a total inability to furnish our own clothing. Prices are made the world over by the rule of what the seller can get, what the buyer will stand; that seems to be a law of business which is universally followed. If Schedule K is revised downward, as it was under the Wilson bill, the sheep will disappear from our hills. Then what will the importers charge us for our woollens when the only thing competing with woolen goods manufactured abroad will be our old clothes with patches at elbow and knee? — *Hon. James Kennedy of Ohio.*

#### A CONTEST BETWEEN PROTECTION AND FREE TRADE.

THE tariff contest to-day is just what it has been for fifty years — a contest between protection and free trade. We now have in command of the Democrats in the House of Representatives a man who has never attempted to dodge or explain away the Democratic position. The Hon. Champ Clark announced himself a free trader "from the sole of my feet to the crown of my head," as he expressed it when he came to Congress, and he has been consistent in that declaration throughout his public service.

With Mr. Clark as the Democratic leader of those who are

dissatisfied with the Payne tariff law, there ought to be no misunderstanding as to what the contest means. It is progressive only toward free trade; it is reactionary as to all the progress we have made under protection in the last half century.

The agitation for another tariff revision, or another attempted revolution in our revenue policy, is just as dangerous to the welfare of the whole people as was that of 1894, when the Wilson tariff was enacted.

I have no defence to make of the Payne law, for it needs none. It is the enactment of the pledges made by the Republican National Convention in 1908. It is in keeping with the policy of protection which the Republican party has maintained as the correct revenue policy ever since the election of Abraham Lincoln; in fact, it is in harmony with the very first revenue legislation of the First Congress under the administration of Washington. That policy is to protect the American producer from the unequal competition of the foreign product, in order that we may keep our labor on a higher plane than is the labor of Europe, Asia, and the islands of the sea. — *Speaker Joseph G. Cannon, in accepting his twentieth nomination for Congress.*

### NEW ENGLAND AND THE TARIFF.

IN discussing the tariff and animadverting not a little to the effect that the protection afforded New England industries in the Payne bill will come back to plague this section of the country, the "Springfield Republican" says: "The next tariff revision is likely to be conducted by the Western radicals, and then it may become apparent that Mr. Lodge did his section a poor turn in doing 'too much' for it at the last revision." If sin it be to represent adequately the interests of his State and immediate section of the country, as Senator Lodge did, he sinned in a noble cause. What would Massachusetts have said if the Senator on the finance committee had turned a deaf ear to the representations of the manufacturers of the Bay State? The cotton men asked for no other duty than that which had been in the original Dingley bill which the courts had emasculated. By reason of the courts' interpretations of the law they failed in that protection which would have enabled them to produce in this country a style of cotton goods this land has paid \$75,000,000 a year for. In producing this "too much" good we

opine that Senator Crane was as "guilty" as Mr. Lodge. All the New England Senators contributed their votes and those in our States were no more reprehensible in their conduct than Borah, who stood out for a high duty on lead, a great product of Idaho, Cummins, Dolliver, Bristow, and McCumber for agricultural products, Flint for lemons, Bailey for hides, Bacon for cotton, and Smith of Michigan for lumber, and so on. Possibly in any future tariff-making these Senators who unite their interests with others in the protection of home industries will be as efficient in doing this as in the past; but the country will be satisfied, so long as the duties simply protect American labor and grant no unfair or special favors. — *Boston Advertiser*.

### THE PRICE OF CLOTHING.

THE manufacturer of cloth for suitings, overcoats, etc., is satisfied to get a profit of 15 to 20 cents on the cloth necessary for a suit of clothes. The retailer is not satisfied with less than \$2.50 on a \$10 suit and close to \$7 on a \$25 suit. He tells his customer that on account of the tariff he must charge \$2 more for the suit, when, as a matter of fact, there is not 50 cents' worth more wool in the suit even when wool prices were 20 per cent higher than at the present time. The light-weight fabrics have been priced to draw business this year, and not on the cost of raw material and manufacturing costs. They are considerably lower than a year ago, when the retailer was forced to add the two-dollar advance on account of the tariff. We shall watch with interest the outcome next spring. Will the tariff still be responsible for additional charges, or will the retailer reduce prices because the goods are lower?

The clothing manufacturer makes profits into the dollars, four or five of them on \$15 to \$30 suits, and a matter of 5 to 10 cents a yard, a good difference in the price of cloth, means 17 to 35 cents greater or less profits on a suit of clothes. This difference means everything to the mills and their hundreds of thousands of operatives, yet almost every one stands ready to condemn the manufacturers. Attention should be turned to the factors really responsible, and when retailers are regulated, prices will be within the reach of all the people, rich or poor. — *Fibre and Fabric*.

## CHINESE COMPETITION IN THE UNITED STATES.

IN the early part of the present year a Pacific coast steel corporation in the United States entered into a contract with the Ta Yeh iron mines on the Yangtze to take annually for the next fifteen years 36,000 tons of pig iron and 36,000 tons of iron ore, to be transported to the United States and there turned into finished products. While this fact is widely separated from the present campaign instituted in China to force an entrance into American markets for China coal, cement, bricks, etc., the two are alike significant in demonstrating that, commercially speaking, China is moving, or is being moved, which, in the end, will amount to the same thing.

The present course of events in China points to a not far distant resumption by the Chinese of the few railway and mining concessions still held by foreign interests, and when this complete resumption has been effected the competition between Chinese products and foreign products in China and elsewhere will mean the competition between Chinese and foreigners, and not as at present between foreigners in China and foreigners elsewhere.

Forty years ago China did not have a railway or a mine worked by anything but the most primitive native methods. To-day the Empire is already beginning to feel the restrictions of domestic demand for its iron and coal and other products and is looking abroad for markets for the surplus production. — *From Report by Consul-General Knabenshue, Tientsin.*

## IOWA SHEEP SHOW.

A GREAT exposition of a great commonwealth. The Iowa State Fair and Sheep Exhibit was probably the largest, and certainly was never excelled in quality, in the State fair history. This is especially true of the Shropshire, Hampshire and Oxford breeds, where competition was particularly keen. No State has made greater progress in the development of her resources. No State has been more aggressive in investigation and progress along the lines of animal husbandry and no State should breed better sheep. Iowa is naturally well adapted to breeding and feeding sheep. Nevertheless, the sheep industry has declined somewhat during the early part of the present decade. We are glad to



discover, however, a greater interest in the sheep industry and its possibilities growing up in Iowa, and we may reasonably expect equal development in the culture of sheep that has characterized the work in other and various phases of animal husbandry in Iowa. The sheep exhibit this year numbered something like 600 head, and some of the Iowa breeders made a creditable display. The Shropshire exhibit was especially strong, being represented by several leading flocks of national reputation and several well-known Iowa flocks — altogether about twelve exhibitions showing over a hundred head of Shropshires. — *American Sheep Breeder*.

#### TARIFF REDUCTION MEANS WAGE REDUCTION.

WITH a much larger construction cost here, because more modern mills are considered necessary, with higher machinery costs, because American labor justly demands higher wages than are paid in any other country, and with an operative wage scale in the mills much higher than is paid anywhere else in the world, ample protection is a recognized necessity, and if the mill workers do not rise in their might and demand this protection, there will be many empty stomachs and cold beds in our mill towns this winter. Manufacturers have hatches all battened down and sails reefed for a possible storm, and it will not be a matter of weeks, but of months and probably years, before the differences can be adjusted and the mills started on normal production if the way is clear for foreign competition. It is not a matter of inspiration, but a bold fact, that a reduction in tariff on wool and cottons means a wage reduction, and the ones to suffer most will be the operatives and their families. Every mill city and village will feel the effects and in our opinion the first year or two years of the promised Insurgent-Democratic revision, if accomplished, will be so much worse than the past six months of curtailment, that those months will seem to have been picnic times. — *Fibre and Fabric*.

#### COLONIAL MILL ENTERPRISES.

THOSE Lancastrians who are outside of the whirlpool of current labor troubles in the cotton industry are watching keenly the endeavors which are being made in Canada and other colonies to establish new milling facilities. In the case of the

Dominion schemes have been hinted at for large factories outside the control of Canadian Cotton and Dominion Textile — the two combines of importance. These are, however, not expected to mature in the early future. On the other hand, some doubts are cast upon the possibility of success rewarding those schemers who propose to erect two modern woolen mills in Tasmania, 120 miles apart, *i.e.*, in Hobart and Launceston. They are intended to employ 700 hands, and the capital involved is £100,000, of which £45,000 is stated to have been underwritten in London, and £20,000 in Hobart. It is pointed out, with some force, that this decentralization is against economic working; but those who are putting their money into the scheme frankly confess that they are doing so because the protective tariff will enable them to reap profits which, under free conditions, would not be forthcoming. What the Tasmanian consumers' view of this planning is, or will be, we shall have to wait and see. — *The Yorkshire Observer*.

### SHEEP FOR JAPAN.

THE Japanese government is attempting to build up an interest in sheep husbandry in that country. For the purpose of collecting information regarding the business and methods with sheep in America, and to enlist the attention of American flock owners to the possibilities of Japan as a purchaser of foundation stock, Dr. Issa Tanimura is touring the United States as a special envoy from the Emperor.

With the decline of Buddhism in Japan — the eating of quadrupeds was forbidden by the ancient religion — a demand has arisen for meat, and there is a great annual importation of wool. In Japan sheep may graze throughout almost the entire year. The climate is so favorable that lambing and shearing have occurred twice a year in some of the flocks now established. Dr. Tanimura plans to spend a year on his tour in search of information as to the most suitable breeds of sheep for Japan and the method of flock husbandry, and he hopes to secure the export of breeding sheep to his country. — *The Textile Mercury*.

### LACK OF SKILLED LABOR.

ANALYZE this vast horde of human derelicts, and you will find that not 5 per cent have ever been skilled in any vocation in life; they have simply been a drug in the human market, starving

in the midst of plenty, self-reliance gone beyond hope of rescue, even when strong arms are stretched out to save them, we see the victims of a false and unpractical system of education. You may for yourselves test the ingredients of the torrent which pours daily into this great and increasing lake of human despair. You have only to make it known that you require a man to act as porter, or in any capacity where skilled labor is not required, and you will have applicants by the score; advertise for a clerk, and you will be besieged by hundreds of thinly-clad, highly educated men, willing to give their services for the merest pittance; but if you are seeking a practical man for your mill, you may wait many a day and never hear of one. — *From an address by Mr. Frank Warner before the Textile Institute at Bradford, England.*

#### BAILEY'S TARIFF POLICY.

SENATOR JOSEPH W. BAILEY'S candidacy for the Democratic Presidential nomination on the platform of tariff taxes on all raw materials meets with a hearty response in North Carolina. The North Carolina delegation in Congress was especially active a year ago in fighting a reduction of duties on lumber, in spite of the declaration of the Democratic national platform in favor of putting lumber on the free list. In order to save lumber the North Carolinians seem to be willing to accept the whole Bailey programme, which insists on the taxation of hides, coal, iron ore, crude India rubber and every other raw material so long as duties are retained on a manufactured product into which the raw material enters. The "Charlotte Observer" and the "Wilmington Star" both applaud the Texas convention, which repudiated the Democratic national platform of 1908 and set up as standard Democratic tariff doctrine the declarations of the Texas State platform of 1896. — *New York Tribune.*

#### SHEEP AT THE OHIO STATE FAIR.

OHIO is the greatest pure bred sheep raising State in the Union, and the Ohio State Fair the greatest sheep show in the country. This is not only true of the fine wool breeds but of the mutton sheep as well. Ohio has long been the leading State in the production of fine wool, and during the last ten or fifteen years much progress has been made in the development of type

and character of fine wool sheep, and the measure of future progress and development depends largely on tariff legislation and other conditions affecting the prosperity of the breeders. No breed or industry will prosper under adverse conditions. The same is more or less true of the mutton breeds of which Ohio has more than an average share. The recent exhibit of sheep at Columbus was perhaps not as large as that held last year, but the quality was equal. The Shropshire department as usual attracted much attention in both the imported and home-bred classes. — *American Sheep Breeder*.

### A CAMPAIGN OF EDUCATION.

WHAT is needed is a campaign of education, such as was brought into play so effectively in the struggle of 1896, when Bryan's free silver vagary was shattered by effective work on the stump and through the press. This will not be forthcoming, however, as protection newspapers are few and far between, and it is by no means the popular thing to attempt a defence of protection from the rostrum. The moment a man opens his head in favor of protection, that moment is he branded as a servile follower of Cannon and Aldrich, and off comes his head. It will take a panic of lusty proportions to bring the people back to their senses, and if they entrust the Government to the low-tariff forces it will be forthcoming. The short-sightedness of the American voter with respect to the only policy which has brought enduring prosperity to the country is complimentary neither to his stability nor his judgment. — *American Economist*.

### ADVANTAGE OF A HOME MARKET.

IN the summer of 1909 the American Woolen Company, of Boston, bought 25,000,000 pounds of wool in Montana alone, paying 27 cents per pound for "fine staple," 29 cents for half blood, 30 cents for three-eighths blood, and 24 to 25 cents for clothing wools. A despatch from Alberta, Canada, in the same season, reported the wool clip of that Province to be about 400,000 pounds, and the best price bid was 13¼ cents a pound. The wool clip of Montana is 40,000,000 pounds a year, and thus at a difference of only 10 cents a pound the sheep raisers of that single State would make over \$4,000,000 more than would be

made by the same number of ranchers in Alberta. These are concrete illustrations of the advantage of a home market.—*Canadian Textile Journal*.

### UNINTELLIGENT PROTECTIONISM.

IN 1871 there were 25,000,000 sheep in Germany; now there are only 7,000,000. The unintelligent application of the principle of protection is responsible for the enormous decrease. Free wool has made it unprofitable to raise sheep in most parts of the Empire. Doubtless the scientific schedule framers of the German tariff thought they were doing the right thing when they discouraged the stock raiser, but it is an open question whether the advantage gained by the manufacturer has not been more than offset by the higher price of meat in Germany. Flocks of sheep aggregating 25,000,000 produced an enormous quantity of mutton, the diminution of which must be held responsible for at least a part of the high price Germans are compelled to pay for meat.—*San Francisco Chronicle*.

### IMPORTANCE OF COTTON EXPORTS.

COTTON forms one-fourth the value of the exports of the United States, and is therefore the greatest factor in maintaining the country's trade balance with the world. The American exports of raw cotton for the twelve months ended August 31, 1910, which covers the "cotton year," were 6,330,276 bales, valued at \$460,093,295. This was 2,236,066 bales less than in the previous cotton year, but the value was \$40,748,237 greater than the shipments for the twelve months ended August 31, 1909. In other words, the average export price this year was 14.2 cents per pound, against 9.4 cents last year.—*Daily Consular and Trade Reports, October 5, 1910*.



QUARTERLY REPORT OF THE BOSTON WOOL MARKET  
FOR JULY, AUGUST AND SEPTEMBER, 1910.

DOMESTIC WOOLS. (GEORGE W. BENEDICT.)

	1910.			1909.
	July.	August.	September.	September.
<b>OHIO, PENNSYLVANIA, AND WEST VIRGINIA.</b>				
(WASHED.)				
XX and above . . . . .	31 @ 32	30 @ 31	30 @ 31	36 @ 37
X . . . . .	30 @ 31	29 @ 30	29 @ 30	35 @ 36
1/2 Blood . . . . .	33 @ 34	33 @ 34	33 @ 34	41 @ 42
" . . . . .	33 @ 34	33 @ 34	33 @ 34	40 @ 41
" . . . . .	32 @ 33	32 @ 33	32 @ 33	38 @ 39
Fine Delaine . . . . .	33 @ 34	33 @ 34	33 @ 34	40 @ 41
(UNWASHED.)				
Fine . . . . .	21 @ 22	20 @ 21	20 @ 21	27 @ 28
1/2 Blood . . . . .	28 @ 29	28 @ 29	28 @ 29	36 @ 37
" . . . . .	27 @ 28	27 @ 28	27 @ 28	36 @ 37
" . . . . .	26 @ 27	26 @ 27	26 @ 27	34 @ 35
Fine Delaine . . . . .	25 @ 26	25 @ 26	25 @ 26	33 @ 34
<b>MICHIGAN, WISCONSIN, NEW YORK, ETC.</b>				
(WASHED.)				
Fine . . . . .	32 @ 33	32 @ 33	32 @ 33	40 @ 41
1/2 Blood . . . . .	32 @ 33	32 @ 33	32 @ 33	39 @ 40
" . . . . .	31 @ 32	31 @ 32	31 @ 32	38 @ 39
" . . . . .	31 @ 32	31 @ 32	31 @ 32	39 @ 40
Fine Delaine . . . . .	31 @ 32	31 @ 32	31 @ 32	39 @ 40
(UNWASHED.)				
Fine . . . . .	20 @ 21	19 @ 20	19 @ 20	26 @ 27
1/2 Blood . . . . .	27 @ 28	27 @ 28	27 @ 28	35 @ 36
" . . . . .	27 @ 28	27 @ 28	27 @ 28	35 @ 36
" . . . . .	25 @ 26	25 @ 26	25 @ 26	34 @ 35
Fine Delaine . . . . .	23 @ 24	24 @ 25	24 @ 25	32 @ 33
<b>KENTUCKY AND INDIANA.</b>				
(UNWASHED.)				
1/2 Blood . . . . .	28 @ 29	28 @ 29	28 @ 29	36 @ 37
" . . . . .	26 @ 27	27 @ 28	27 @ 28	34 @ 35
Braid . . . . .	22 @ 23	22 @ 23	22 @ 23	30 @ 31
<b>MISSOURI, IOWA, AND ILLINOIS.</b>				
(UNWASHED.)				
1/2 Blood . . . . .	26 @ 28	26 @ 28	26 @ 28	33 @ 34
" . . . . .	24 @ 25	24 @ 25	24 @ 25	32 @ 33
Braid . . . . .	20 @ 21	21 @ 22	21 @ 22	30 @ 31
<b>TEXAS.</b>				
(SCOURD BASIS.)				
Spring, fine, 12 months . . . . .	60 @ 62	59 @ 60	60 @ 61	76 @ 78
" " 6 to 8 months . . . . .	54 @ 55	53 @ 54	53 @ 54	67 @ 68
" medium, 12 months . . . . .	53 @ 55	52 @ 54	52 @ 54	65 @ 67
" " 6 to 8 months . . . . .	48 @ 50	47 @ 48	47 @ 48	60 @ 62
Fall, fine . . . . .	48 @ 50	48 @ 50	48 @ 50	60 @ 61
" medium . . . . .	43 @ 45	42 @ 43	42 @ 43	53 @ 55
<b>CALIFORNIA.</b>				
(SCOURD BASIS.)				
Spring, Northern, free, 12 months . . . . .	54 @ 56	54 @ 56	54 @ 56	68 @ 70
" " " 6 to 8 months, . . . . .	51 @ 52	51 @ 52	51 @ 52	63 @ 65
Fall, free . . . . .	44 @ 45	44 @ 45	44 @ 45	53 @ 55
" defective . . . . .	33 @ 36	33 @ 38	33 @ 38	40 @ 45
<b>TERRITORY WOOL: Montana, Wyoming, Utah, Idaho, Oregon, etc.</b>				
(SCOURD BASIS.)				
Staple, fine and fine medium . . . . .	60 @ 61	61 @ 62	61 @ 62	75 @ 78
" medium . . . . .	55 @ 56	56 @ 57	56 @ 57	70 @ 73
Clothing, fine . . . . .	56 @ 57	56 @ 57	56 @ 57	70 @ 72
" " medium . . . . .	54 @ 55	54 @ 55	54 @ 55	67 @ 70
" " medium . . . . .	50 @ 51	50 @ 51	50 @ 51	65 @ 67
<b>NEW MEXICO, (Spring.)</b>				
(SCOURD BASIS.)				
No. 1 . . . . .	55 @ 56	55 @ 56	55 @ 57	67 @ 70
No. 2 . . . . .	45 @ 47	45 @ 47	46 @ 47	57 @ 60
No. 3 . . . . .	36 @ 37	36 @ 37	36 @ 37	47 @ 50
No. 4 . . . . .	34 @ 35	34 @ 35	34 @ 35	43 @ 45
<b>NEW MEXICO, (Fall.)</b>				
(SCOURD BASIS.)				
No. 1 . . . . .	44 @ 45	44 @ 45	44 @ 45	55 @ 57
No. 2 . . . . .	38 @ 40	38 @ 40	38 @ 40	49 @ 52
No. 3 . . . . .	33 @ 34	33 @ 34	33 @ 34	45 @ 46
No. 4 . . . . .	30 @ 31	30 @ 31	30 @ 31	40 @ 42
<b>GEORGIA AND SOUTHERN.</b>				
Unwashed . . . . .	24 @ 25	24 @ 25	24 @ 25	32 @ 33

DOMESTIC WOOL.

Boston, September 30, 1910.

The wool market during the past quarter has been devoid of any special interest. The light weight season has been as disappointing to the majority of the worsted manufacturers as was the previous heavy weight season, with the natural result that consumers of wool have been quite indifferent to the wool market and have bought only when necessary to replenish supplies for immediate use.

Notwithstanding this slack demand prices have held fairly steady. Dealers have preferred to wait for a reasonable call for stock rather than force sales on indifferent customers, believing that all good wools would be wanted sooner or later and, with values 25 per cent below those of a year ago, the risk of a further decline was not great. In any event they felt that they were at least justified in holding their wools for awhile until a reasonable profit could be obtained.

New wools have been arriving very freely and the percentage of strictly worsted staple in the territory clip is decidedly less than usual.

Fleece wools have commanded some attention, and several good-sized blocks have been contracted for by manufacturers who always depend on a certain amount of this class of stock. Half blood grades have been more in demand than others.

That domestic wool is comparatively low can be determined by the fact that quite a line of territory wool was purchased in September for export, it being considered cheaper per scoured pound than similar wools abroad.

These conditions have not prevailed for many years and would indicate an abnormal state of the market, which is not destined to continue long.

GEORGE W. BENEDICT.

PULLED WOOLS. (*Scoured basis.*) (W. A. BLANCHARD.)

	1910.			1909.
	July.	Aug.	Sept.	Sept.
Brushed, Extra . . . . .	63 @ 68	63 @ 68	63 @ 68	73 @ 77
Fine A . . . . .	57 @ 60	57 @ 60	57 @ 60	67 @ 70
A Super . . . . .	50 @ 55	50 @ 55	50 @ 55	62 @ 65
B Super . . . . .	45 @ 48	45 @ 48	45 @ 48	54 @ 58
C Super . . . . .	33 @ 38	33 @ 38	33 @ 38	35 @ 40
Fine Combing . . . . .	55 @ 60	55 @ 60	55 @ 60	65 @ 70
Combing . . . . .	43 @ 50	43 @ 50	43 @ 50	53 @ 60
California, Extra . . . . .	58 @ 62	58 @ 62	58 @ 62	68 @ 72

REMARKS.

There have been no features of distinctive interest in the market, and, at this season of the year, production is confined principally to lambs' wools. These have been mainly taken by dealers who have, in turn, sold the scoured product to woolen mills at a narrow margin of profit. A limited amount of

fine and combing grades, carried over from earlier in the year, have been sold at quotations given. B lambs have been the most active grade on the list, and, in the case of strictly white wool, 48 @ 50 cents has been obtained. Some shearlings have been pulled, but in limited quantity, and these have brought from 40 @ 45 cents for fine and 30 @ 35 cents for coarse and medium grades. Gray lambs have sold readily at 33 @ 36 cents. With few exceptions the pullers have kept their wools sold up to production and the market has shown practically no fluctuation.

W. A. BLANCHARD.

FOREIGN WOOLS. (MAUGER & AVERY.)

	1910.			1909.
	July.	Aug.	Sept.	Sept.
Australian Combing:				
Choice . . . . .	39 @ 41	39 @ 40	40 @ 41	43 @ 45
Good . . . . .	38 @ 39	36 @ 38	37 @ 39	40 @ 41
Average . . . . .	36 @ 37	35 @ 36	35 @ 37	39 @ 40
Australian Clothing:				
Choice . . . . .	40 @ 42	38 @ 40	40 @ 41	42 @ 43
Good . . . . .	36 @ 37	35 @ 36	35 @ 37	40 @ 41
Average . . . . .	35 @ 36	34 @ 35	35 @ 36	38 @ 40
Sydney and Queensland:				
Good Clothing . . . . .	36 @ 38	35 @ 37	35 @ 37	40 @ 41
Good Combing . . . . .	38 @ 39	36 @ 37	36 @ 38	42 @ 43
Australian Crossbred:				
Choice . . . . .	38 @ 40	36 @ 38	37 @ 40	42 @ 43
Average . . . . .	34 @ 35	33 @ 35	34 @ 36	36 @ 38
Australian Lambs:				
Choice . . . . .	42 @ 46	41 @ 45	42 @ 46	42 @ 46
Good . . . . .	40 @ 42	39 @ 40	39 @ 40	40 @ 43
Good Defective . . . . .	35 @ 38	34 @ 37	35 @ 36	35 @ 38
Cape of Good Hope:				
Choice . . . . .	35 @ 37	34 @ 36	34 @ 35	35 @ 37
Average . . . . .	32 @ 33	32 @ 33	31 @ 33	32 @ 33
Montevideo:				
Choice . . . . .	35 @ 36	34 @ 35	34 @ 35	34 @ 36
Average . . . . .	32 @ 33	31 @ 32	31 @ 32	31 @ 33
Crossbred, Choice . . . . .	36 @ 38	35 @ 38	35 @ 38	36 @ 38
English Wools:				
Sussex Fleece . . . . .	42 @ 43	41 @ 42	40 @ 42	43 @ 44
Shropshire Hogs . . . . .	42 @ 43	41 @ 42	40 @ 42	42 @ 43
Yorkshire Hogs . . . . .	37 @ 38	37 @ 38	36 @ 38	35 @ 36
Irish Selected Fleece . . . . .				36 @ 37
Carpet Wools:				
Scotch Highland, White . . . . .	21 @ 22	21 @ 22	21 @ 22	22 @ 23
East India, 1st White Joria . . . . .	30 @ 32	30 @ 32	30 @ 32	29 @ 30
East India, White Kandahar . . . . .	25 @ 26	24 @ 25	24 @ 26	26 @ 27
Donskoi, Washed, White . . . . .	31 @ 32	31 @ 32	31 @ 33	32 @ 34
Aleppo, White . . . . .	31 @ 32	31 @ 32	32 @ 33	32 @ 34
China Ball, White . . . . .	21 @ 22	21 @ 23	22 @ 24	22 @ 23
" " No. 1, Open . . . . .	20 @ 21	20 @ 21	20 @ 21	20 @ 21
" " No. 2, Open . . . . .	13 @ 14	12 @ 13	13 @ 14	12 @ 14

FOREIGN WOOLS.

Boston, November 4, 1910.

The third quarter of the year did not prove to be any more active for the manufacturers of wool than the second quarter. The demand for wool was limited and prices ruled in buyer's favor. Merino wools were only in

occasional request, and good sized lines were exported for sale in the September sales at London. Crossbred wools continued in moderate request here, and towards September values of both merino and crossbred showed a slight advance in value.

The low price to which domestic medium wools declined in the fall prevented the use of English wools, which have only come forward in limited quantities this year.

South American importations in 1909 proved as a rule unremunerative, and what remained on the market this year was from time to time disposed of at unsatisfactory prices.

Carpet wools were in moderate request, especially good combing wools, the firm views of holders abroad making it difficult for manufacturers to purchase wools at the primary markets lower than they could be secured here.





Camel's hair—	36 cents per pound,	.....	.....	.....	54.00	15.00	19.44	.278	129.60
Scoured (pounds)	12 cents per pound,	.....	.....	.....	1,966,918.50	682,014.00	236,030.22	.347	34.61
Half of the Angora goat, alpaca, and other like animals—	24 cents per pound,	.....	.....	.....	1,565.04	.....	.....	.216	333.47
Washed and unwashed (pounds)	72 cents per pound,	.....	.....	.....	.....	19.00	63.36	.....	.....
Sorted (pounds)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scoured sorted (pounds)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, Class 2 . . . . .	.....	17,891,765.35	3,922,813.75	2,143,938.14	28,776,380.17	8,946,054.24	3,212,413.03	.259	46.25
Class 3 — Donskoi, native South American, Cordova, Valparaiso, native Smyrna, Russian camel's hair, etc.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Valued 12 cents or less per pound —	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wool, washed and unwashed —	.....	.....	.....	.....	.....	.....	.....	.....	.....
On the skin (pounds)	3 cents per pound,	894,778.60	62,383.71	25,943.35	1,391,180.50	129,863.00	41,735.42	.093	32.14
Not on the skin (pounds)	4 cents per pound,	76,807,986.00	7,865,221.00	3,072,319.44	83,301,094.50	9,179,400.20	3,332,043.78	.110	36.30
Scoured (pounds)	12 cents per pound,	10,149.00	2,029.00	1,217.88	.....	.....	.....	.....	.....
Camel's hair, Russian, washed and unwashed (pounds)	4 cents per pound,	3,358,490.00	367,318.00	134,339.60	2,087,866.00	243,890.00	83,514.64	.117	34.24
Valued over 12 cents per pound —	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wool, washed and unwashed —	.....	.....	.....	.....	.....	.....	.....	.....	.....
On the skin (pounds)	6 cents per pound,	80.00	12.00	4.80	244.07	38.00	14.04	.156	38.53
Not on the skin (pounds)	7 cents per pound,	9,541,859.65	1,780,106.00	607,930.18	30,408,348.00	5,251,621.00	2,128,684.36	.173	40.53
Scoured (pounds)	21 cents per pound,	108.90	21.00	22.88	.....	.....	.....	.....	.....
Camel's hair, Russian, washed and unwashed (pounds)	7 cents per pound,	782,103.00	155,727.00	54,747.21	581,745.00	85,498.00	40,722.15	.147	47.63
Total, Class 3 . . . . .	.....	91,365,555.15	10,232,817.71	3,956,525.34	117,770,478.07	14,890,360.20	5,626,614.99	.126	37.78
Total, wools, etc., unmanufactured . . . . .	.....	209,216,326.13	34,757,909.15	17,081,745.94	256,606,638.14	47,687,293.20	21,128,728.74	.186	44.31
Manufactures composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals—	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wool and hair advanced in any manner or by any process of manufacture, beyond the washed or scoured condition, not specially provided for—	.....	.....	.....	.....	.....	.....	.....	.....	.....
Valued at not more than 40 cents per pound (pounds)	33 cents per pound and 50 per cent.	1,696.50	598.00	858.84	92.00	15.00	37.83	.163	252.20
Valued above 40 and not above 70 cents per pound (pounds)	44 cents per pound and 50 per cent.	506.75	248.00	346.97	4.00	2.80	3.16	.700	112.86
Valued at over 70 cents per pound (pounds)	44 cents per pound and 55 per cent.	45.00	33.00	37.95	137.25	274.00	211.09	2.000	77.04
Total, advanced . . . . .	.....	2,248.25	879.00	1,243.76	233.25	291.80	252.08	1.25	86.33

Imports of Wool and Manufactures of Wool, entered for Consumption, Years ending June 30, 1909 and 1910. Quantities, Values, Rates of Duty, and Accruing Duties. — Continued.

ARTICLES.	Rates of duty.	1909.				1910.			
		Quantities.	Values.	Duties.	Quantities.	Values.	Duties.	Value per unit of quantity.	Average.
			Dollars.	Dollars.		Dollars.	Dollars.	Dollars.	Pr. ct.
Wools, hair of the camel, etc. — <i>Continued.</i>									
Rags, mungo, flecks, noils, shoddy, and waste —									
Noils (pounds) . . . . .	20 cents per pound.	127,965.00	48,754.00	25,593.00	122,227.00	76,253.00	24,445.40	.624	32.06
Rags and flecks (pounds) . . . . .	10 cents per pound.	32,773.00	9,232.00	3,277.30	362,525.00	95,191.25	36,252.50	.263	38.08
Shoddy (pounds) . . . . .	25 cents per pound.	. . . . .	. . . . .	. . . . .	30.00	2.00	7.50	.067	375.00
Wastes, slubbing, ring, and garnetted (pounds) . . . . .	30 cents per pound.	10.00	2.00	3.00	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Wastes, top and roving (pounds) . . . . .	30 cents per pound.	244.00	74.00	73.20	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Wool extract, yarn, thread, and all other wastes not specially provided for (pounds) . . . . .	20 cents per pound.	89,601.00	35,737.00	17,920.20	92,938.00	32,063.00	18,587.60	.345	57.97
Total rags, mungo, flecks, noils, etc. . . . .	. . . . .	250,593.00	94,799.00	46,866.70	577,720.00	203,509.25	79,293.00	.352	38.96
Combed wool or tops, made wholly or in part of wool or camel's hair —									
Valued at more than 20 cents per pound (pounds)	36½ cents per pound and 30 per cent.	. . . . .	. . . . .	. . . . .	1,868.00	838.00	936.33	.449	111.73
Yarns, made wholly or in part of wool —									
Valued not more than 30 cents per pound (pounds) . . . . .	27½ cents per pound and 35 per cent.	. . . . .	. . . . .	. . . . .	127.00	28.00	44.73	.220	159.75
Valued not more than 30 cents per pound (pounds) . . . . .	27½ cents per pound and 40 per cent.	29.50	7.80	11.23	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Valued more than 30 cents per pound (pounds) . . . . .	38½ cents per pound and 40 per cent.	299,224.35	246,331.56	213,734.18	359,761.30	326,858.02	269,251.43	.908	82.38
Total yarns . . . . .	. . . . .	299,253.85	246,339.36	213,745.41	359,888.30	326,886.02	269,296.16	.908	82.38



*Imports of Wool and Manufactures of Wool, entered for Consumption, Years ending June 30, 1909 and 1910. Quantities, Values, Rates of Duty, and Accruing Duties. — Continued.*

ARTICLES.	Rates of duty.	1909.				1910.			
		Quantities.	Values.	Duties.	Quantities.	Values.	Duties.	Value per unit of quantity.	Average.
Wools, hair of the camel, etc. — <i>Continued.</i>									
Manufactures composed wholly or in part of wool, worsted, etc. — <i>Continued.</i>									
Carpets and carpeting. — <i>Continued.</i>									
Druggets and bookings, printed, colored, or otherwise (square yards) . . . . .	22 cts. per sq. yd. and 40 per cent.	18,285.00	14,371.00	Dollars. 9,771.10	36,537.89	Dollars. 30,887.00	Dollars. 20,273.13	Dollars. .887	Pr. ct. 66.28
Felt carpeting (square yards) . . . . .	50 per cent. . . . .	54.50	67.00	33.50	42.00	43.00	21.50	1.020	50.00
Saxony, Wilton, and Tournay velvet carpets, square yards . . . . .	60 cts. per sq. yd. and 40 per cent.	13,059.68	28,463.00	19,221.01	20,450.93	40,711.00	28,554.96	1.990	70.14
Tapestry Brussels, printed on the warp or otherwise (square yards) . . . . .	28 cents per sq. yd. and 40 per cent.	76.00	363.00	166.48	163.00	187.00	120.44	1.150	64.41
Treble ingrain, three-ply, and all chain Venetian carpets (square yards) . . . . .	22 cts. per sq. yd. and 40 per cent.	17,576.00	15,373.00	10,015.92	1,853.00	1,675.00	1,077.66	.904	64.34
Velvet and tapestry velvet carpets, printed on the warp or otherwise (square yards) . . . . .	40 cts. per sq. yd. and 40 per cent.	20,866.76	36,912.00	23,111.50	23,056.73	41,058.00	25,645.89	1.780	62.46
Wool, Dutch, and two-ply ingrain carpets (square yards) . . . . .	18 cts. per sq. yd. and 40 per cent.	768.00	675.00	408.24	27.50	22.00	13.75	.800	62.50
Carpets and carpeting of wool and flax or cotton, not specially provided for (square yards)	50 per cent. . . . .	30,829.05	36,393.25	18,196.63	27,113.56	40,762.00	20,381.00	1.500	50.00
Mats, rugs for floors, screens, covers, bassocks, bedslides, art squares, and other portions of carpets and carpeting, not specially provided for (square yards) . . . . .	{ 44 cents per sq. yd. and 40 per cent. 90 cents per sq. yd. and 40 per cent. 50 per cent. . . . .	. . . . .	. . . . .	. . . . .	2.00	2.00	1.68	1.000	84.00
		. . . . .	. . . . .	. . . . .	31.00	401.00	188.30	12.930	48.96
		. . . . .	. . . . .	. . . . .	10.00	13.25	6.63	1.320	50.00
Total carpets and carpeting . . . . .	. . . . .	987,999.57	3,748,556.05	2,312,796.96	1,143,163.49	4,619,169.68	2,802,211.52	4.040	60.60

Cloths, woolen or worsted — Valued not more than 40 cents per pound and 50 per cent. . . . .	33 cents per pound and 50 per cent.	10,099.25	3,733.25	5,199.39	6,016.20	2,111.00	3,040.88	.351	144.05
Valued more than 40 cents and not more than 70 cents per pound (pounds) . . . . .	44 cents per pound and 50 per cent.	266,510.73	167,143.91	200,836.68	458,427.50	274,246.50	338,831.44	.598	123.55
Valued above 70 cents per pound (pounds) . . .	44 cents per pound and 55 per cent.	4,196,019.18	4,606,561.10	4,379,857.57	5,433,181.78	5,827,776.89	5,595,877.18	1.070	96.02
Ditto (from Philippine Islands) . . . . .	75 per cent. of 44 cents per pound and 55 per cent.	3.00	5.00	3.06	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Valued above 70 cents per pound (pounds) (reci- procity treaty with Cuba) . . . . .	44 cents per pound and 55 per cent. less 20 per cent.	2.75	4.00	2.73	4.50	6.00	4.22	1.330	70.33
Total cloths, etc. (pounds) . . . . .	. . . . .	4,472,634.91	4,777,447.26	4,585,899.43	5,897,629.98	6,104,140.39	5,937,753.72	1.030	97.27
Dress goods, women's and children's, coat linings, Italian cloths, and goods of similar descrip- tion — The warp consisting wholly of cotton or other vegetable materials, with the remainder of the fabric composed wholly or in part of wool — Weighing 4 ounces or less per square yard — Valued not exceeding 15 cents per square yard and not above 70 cents per pound (square yards) . . . . .	7 cents per sq. yd. and 50 per cent. . .	9,326,173.25	1,140,572.00	1,223,118.14	13,634,478.00	1,776,309.00	1,842,517.96	.130	103.73
Above 70 cents per pound (square yards) . . .	7 cents per sq. yd. and 55 per cent. . .	995,129.00	143,384.00	148,520.21	1,216,905.00	174,125.00	180,952.10	.143	103.92
Valued above 15 cents per square yard and not above 70 cents per pound (square yards) . . .	8 cents per sq. yd. and 50 per cent. . .	176,134.00	29,735.00	28,958.22	302,331.65	50,689.00	49,535.03	.167	97.72
Above 70 cents per pound (square yards) . . .	8 cents per sq. yd. and 55 per cent. . .	4,650,642.50	945,119.00	890,266.84	5,454,139.07	1,104,998.00	1,044,080.02	.203	94.49
Weighing over 4 ounces per square yard — Valued not more than 40 cents per pound (pounds) . . . . .	33 cents per pound and 50 per cent.	91.00	34.00	47.03	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .



*Imports of Wool and Manufactures of Wool, entered for Consumption, Years ending June 30, 1909 and 1910. Quantities, Values, Rates of Duty, and Accruing Duties.—Continued.*

ARTICLES.	Rates of duty.	1909.				1910.				Average. Ad value of rate of quantity.	Value per unit of quantity.
		Quantities.	Values.	Duties.	Quantities.	Values.	Duties.	Quantities.	Values.		
Wools, hair of the camel, etc.— <i>Continued.</i> Manufactures composed wholly or in part of wool, worsted, etc.— <i>Continued.</i> Dress goods, women's and children's, etc.— <i>Cont.</i> Valued more than 40 and not more than 70 cents per pound (pounds) . . . . .	44 cents per pound and 50 per cent less 5 per cent. ( 44 cents per pound and 55 per cent . . . 44 cents per pound and 55 per cent less 5 per cent. 44 cents per pound and 55 per cent less 20 per cent.	218,823.00	Dollars. 140,666.00	Dollars. 166,615.12	26,389.50	Dollars. 16,553.00	Dollars. 18,893.49	26,389.50	Dollars. 16,553.00	Dollars. 18,893.49	Dollars. 114.14
Valued more than 70 cents per pound (pounds),		1,856,690.25	1,743,101.00	1,775,649.15	1,711.50	1,945.00	1,822.81	1,711.50	1,945.00	1,822.81	93.72
Ditto (reciprocity treaty with Cuba) . . . . .					178,249.50	162,841.00	159,592.93	178,249.50	162,841.00	159,592.93	98.00
Composed wholly or in part of wool — Weighing 4 ounces or less per square yard — Valued not above 70 cents per pound (square yards) . . . . .	11 cents per sq. yd. and 50 per cent. 11 cents per sq. yd. and 55 per cent. 75 percent of above.	44,397.00	7,207.40	8,487.37	52,293.50	9,480.00	10,492.29	52,293.50	9,480.00	10,492.29	110.68
Valued above 70 cents per pound (square yards), Ditto from Philippine Islands . . . . .		13,051,475.26	2,802,906.61	2,978,360.89	14,550,396.31	3,220,828.10	3,371,999.09	14,550,396.31	3,220,828.10	3,371,999.09	104.69
Weighing over 4 ounces per square yard — Valued not more than 40 cents per pound (pounds) . . . . .	33 cents per pound and 50 per cent.	11.00	2.00	1.73							
		134.50	51.00	69.89	234.00	74.00	114.22	234.00	74.00	114.22	154.35

Valued more than 40 and not more than 70 cents per pound (pounds) . . . . .	2,420.00	1,541.00	1,835.30	429,232.62	268,021.00	322,872.85	.624	120.47
Valued more than 70 cents per pound (pounds), 44 e. p. lb. & 55 p.e.	54,183.66	64,965.00	59,571.56	2,591,811.14	2,432,601.00	2,478,321.45	.938	101.88
Total dress goods . . . . .	. . . . .	7,019,284.01	7,281,501.45	. . . . .	9,215,374.10	9,481,206.75	. . .	102.85
Felts not woven (pounds) . . . . .	83,889.81	99,658.70	96,706.69	90,022.95	107,018.43	103,821.16	1.19	97.01
Flannels for underwear —								
Valued at not more than 40 cents per pound (pounds)	. . . . .	. . . . .	. . . . .	5.00	2.50	1.85	.500	74.00
Valued more than 40 and not more than 50 cents per pound (pounds) . . . . .	. . . . .	. . . . .	. . . . .	28.75	13.00	14.04	.453	108.00
Valued above 50 and not above 70 cents per pound (square yards) . . . . .	11.00	5.00	5.38	. . . . .	20.00	16.12	.360	80.60
Valued above 70 cents per pound (square yards)	. . . . .	. . . . .	. . . . .	55.50	12,937.55	11,331.18	.338	87.59
Weighing over 4 ounces per square yard —	24,096.00	12,126.00	9,319.86	38,323.00	2,357.00	2,866.56	.614	121.62
Valued more than 50 and not more than 70 cents per pound (pounds) . . . . .	6,064.00	4,037.00	4,686.66	3,836.50	107,565.00	113,415.39	.872	105.44
Valued more than 70 cents per pound (pounds), 44 cents per pound and 55 per cent.	99,783.44	83,051.00	89,582.76	123,306.00	122,895.05	127,645.14	. . .	103.87
Total flannels, etc. . . . .	. . . . .	99,219.00	103,594.66	. . . . .	. . . . .	. . . . .	. . .	. . .
Knit fabrics (not wearing apparel) —								
Valued at not more than 40 cents per pound (pounds) . . . . .	1,268.00	476.00	656.44	592.00	240.00	315.36	.406	131.40
Valued more than 40 and not more than 70 cents per pound (pounds) . . . . .	160.00	91.00	115.90	1,623.25	993.00	1,210.73	.612	121.93
Valued above 70 cents per pound (pounds) . . . . .	15,418.00	16,741.00	15,991.47	32,347.29	35,766.88	33,904.58	1.110	94.79
Total knit fabrics (not wearing apparel) . . . . .	16,846.00	17,308.00	16,763.81	34,562.54	36,999.88	35,430.67	1.070	95.76
Plushes and other pile fabrics —								
Valued more than 40 and not more than 70 cents per pound (pounds) . . . . .	2,693.00	1,579.00	1,974.42	6,225.00	3,737.00	4,607.50	.600	123.29
Valued more than 70 cents per pound (pounds)	34,795.00	33,638.00	33,810.70	12,195.38	12,987.46	12,509.07	1.060	96.32
Ditto (reciprocity treaty with Cuba) . . . . .	. . . . .	. . . . .	. . . . .	1.00	2.00	1.23	2.000	61.50
Total plushes, etc. . . . .	37,488.00	35,217.00	35,785.12	18,421.38	16,726.46	17,117.80	.908	102.34



Other clothing (reciprocity treaty with Cuba), (pounds) . . . . .	89.50	197.00	126.06	38.00	66.00	45.06	1.740	68.27
Total wearing apparel (pounds) . . . . .	733,253.06	1,463,300.59	1,200,524.09	860,412.87	1,776,236.34	1,444,296.87	2,060	81.31
Webbings, gorings, suspenders, bandings, beltings, bindings, braids, edgings, fringes, gimps, cords, and other trimmings, etc. (pounds) . . . . .	18,407.34	36,656.50	31,197.67	41,755.75	77,157.70	67,172.62	1,858	87.00
Ditto (from Philippine Islands) (pounds) . . . . .	1.51	8.00	4.16	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Ditto (reciprocity treaty with Cuba) . . . . .	. . . . .	. . . . .	. . . . .	.25	4.00	2.02	16,000	50.50
All other manufactures wholly or in part of wool — Valued not more than 40 cents per pound (pounds) . . . . .	7,779.00	2,445.00	3,789.57	8,879.30	2,876.00	4,368.16	.324	151.88
Valued more than 40 and not more than 70 cents per pound (pounds) . . . . .	88,171.06	50,832.00	64,211.27	116,579.47	62,989.00	82,789.47	.540	131.44
Valued more than 70 cents per pound (pounds)	198,372.07 8,392.00	322,288.91 9,144.00	264,542.62 . . . . .	237,475.98 29.00	327,456.91 62.00	284,590.75 . . . . .	1,380 2,140	86.91 . . . . .
Ditto (reciprocity treaty with Cuba) . . . . .	13.00	22.00	14.26	12.00	19.00	12.58	1,580	66.21
Total webbings, etc., and all other manufactures of wool . . . . .	321,135.98	421,396.41	363,759.55	404,731.75	470,564.61	438,935.50	1,162	93.28
Total manufactures of wool . . . . .	. . . . .	18,049,332.10	16,280,071.30	. . . . .	23,049,644.78	20,771,964.26	. . . . .	90.12
Total wool and manufactures of . . . . .	. . . . .	52,807,241.25	33,361,817.24	. . . . .	70,736,937.98	41,900,693.00	. . . . .	59.23





# INDEX.



# INDEX TO VOLUME XL.

## A.

	Page
Accidents, compensation for industrial . . . . .	439
Africa, wool production in South . . . . .	343
Aldrich-Payne tariff as its friends see it, by Charles Heber Clark . . . . .	403
Aldrich-Payne tariff, first year of the . . . . .	387
Annual convention of the National Wool Growers Association . . . . .	24
Address of F. W. Gooding . . . . .	24
Report of the Secretary, Mr. George S. Walker . . . . .	26
Speech of Hon. Ralph D. Cole . . . . .	27
Resolutions adopted by the convention . . . . .	28
Resolutions concerning forest reserves . . . . .	29
Annual report of the Secretary . . . . .	7
Work of the Tariff Committee, the . . . . .	7
Prosperity of the carded woolen manufacture . . . . .	8
Federal census, the . . . . .	9
National Association's census, the . . . . .	9
Annual Wool Review . . . . .	301
The number of sheep . . . . .	301
Market conditions in 1910 . . . . .	302
Heavy winter losses of sheep . . . . .	304
A great wool storehouse . . . . .	305
Chicago wool warehouse . . . . .	307
United States wool product . . . . .	309
Average weight and shrinkage . . . . .	310
Pulled wool . . . . .	310
Wool production (map) . . . . .	313
Value of the wool product . . . . .	314
Available supplies . . . . .	315
The annual wool supply, 1890-1910 . . . . .	316
Slaughter and movement of sheep . . . . .	317
Course of prices (with chart) . . . . .	319
Boston receipts and shipments of wool . . . . .	320
Statistical tables, imports and exports of wool and woolens . . . . .	321
London sales . . . . .	330
Liverpool sales . . . . .	333
Antwerp auctions . . . . .	335
Australasian sheep and wool statistics . . . . .	336
Preparation of wool for market in Australasia . . . . .	342

	Page
Wool production in South Africa . . . . .	343
River Plate wools . . . . .	344
Uruguay wools . . . . .	346
The world's wool production and consumption . . . . .	347
Number of sheep in the world . . . . .	349
Annual review of the British wool and woolen trade for 1909, the "Bradford Observer" quoted . . . . .	42
Atlantic Coast the revenue producer, Hon. J. Hampton Moore quoted . . . . .	288
Australasian clip, value of, 1881-1909 . . . . .	337
Australasian sheep, 1905-1909 . . . . .	336
Australasian sheep slaughter, 1909 . . . . .	339
Australasian wool auctions . . . . .	340
Australasian wool exports . . . . .	336
Australasia, the number of sheep in . . . . .	60
Australasia, the wool season of 1909-1910 . . . . .	335
Australia, the half year in . . . . .	59
Australia, the wool season of 1909-1910 . . . . .	198
Ayer Mills, description of the . . . . .	377

## B.

Bailey, Senator, on insurgency . . . . .	287
Bailey's tariff policy . . . . .	449
Banquet, coming annual, the . . . . .	105
Banquet, the annual, postponed . . . . .	244
Battison, William J., Annual Wool Review . . . . .	301
Beach, Charles Mason, obituary . . . . .	241
Benedict, George W., quarterly report of the Boston wool market on domestic wools . . . . .	95, 205, 298, 452
Benn, Joseph & Sons, on factory wages in England . . . . .	252
Blanchard, William A., quarterly report of the Boston wool market, on pulled wools . . . . .	96, 206, 299, 453
Bleakie, Robert, letter of, on duty on Class I wools . . . . .	164
Boston receipts and shipments of wool, tables . . . . .	320
Boston wool storehouse . . . . .	305
Bright, Consul F. I., on British woolen and worsted production . . . . .	68
British labor, the unrest of . . . . .	196
British woolen and worsted production . . . . .	68
Broadbent, Hon. B., address at the Huddersfield Technical College, on the utilization of waste products . . . . .	69
By-laws of the Association, revision of the . . . . .	6
By-laws of the Association, new, adopted March 1, 1910 . . . . .	31

## C.

Campaign of education, a . . . . .	450
Campbell, David Robert, obituary . . . . .	37
Canadian wool grower and manufacturer ("Canadian Textile Journal" quoted) . . . . .	258

	Page
Carded woolen manufacture, prosperity of the . . . . .	8
Carey, Henry C., quoted . . . . .	109
Census, resolutions respecting the Federal . . . . .	6
Census, the Federal . . . . .	9
Chicago wool warehouse . . . . .	307
Child labor and wages in China . . . . .	158
China, child labor and wages in . . . . .	158
China sheep skins, duty on . . . . .	82
China, the new industrial . . . . .	158
Chinese and Japanese competition . . . . .	286
Chinese competition in the United States . . . . .	446
Chinese woolen factories . . . . .	67, 277
Clark, Charles Heber, the new tariff as its friends see it . . . . .	403
Clarke, Albert, piecemeal revision of the tariff . . . . .	358
Clark, Frederic S., address on trade organizations before the Lowell Textile School, June, 1910 . . . . .	218
Class legislation, a victory over . . . . .	248
Clothing, drawback on men's . . . . .	294
Clothing, the price of . . . . .	445
Cole, Hon. Ralph D., address at the convention of the National Wool Growers Association . . . . .	27
Colonial mill enterprises . . . . .	447
Colwell report of 1866, introduction to the, reproduced . . . . .	106
Comparative statement of imports and exports of wool and manufac- tures of, twelve months ending December 31, 1908-1909 . . . . .	92
For twelve months ending June 30, 1909-1910 . . . . .	295
Compensation for industrial accidents, the Massachusetts Commission on . . . . .	439
Condition, a standard of . . . . .	130
Conditioning yarn . . . . .	143, 214
Consumer and producer, our double rôle of . . . . .	404
Contest between protection and free trade, a . . . . .	443
Cotton and wool manufacture, statistics of the English . . . . .	414
Cotton, consumption and stocks of, in the principal manufacturing nations . . . . .	174
Cotton exports, importance of . . . . .	451
Court of Customs Appeals, the, by T. O. Marvin . . . . .	389

## D.

Daniell, Fred H., obituary . . . . .	242
Depew, Senator, on the high price of clothing . . . . .	285
Dooley, William H., on part time education . . . . .	267
Draper, General William F., obituary (with portrait) . . . . .	34
Resolutions on death of . . . . .	4
Drawback on carded wool . . . . .	204, 292
Drawback on men's clothing . . . . .	294
Decisions of the Treasury Department on the woolen tariff . . . . .	79, 202, 291
Standard wool samples . . . . .	78, 83, 293



	Page
Olive oil . . . . .	79, 80, 292
China sheep skins . . . . .	82
Reappraisal of mixed wools . . . . .	88
Furniture . . . . .	202
Embroidered wool bathing shoes . . . . .	203
Date of taking effect of tariff of 1909 . . . . .	203
Drawback on carded wool . . . . .	204, 292
Wool — shrinkage — drying subsequent to importation . . . . .	291
Fur wearing apparel . . . . .	293
Wool, first class, washed . . . . .	293
Drawback on men's clothing . . . . .	294

## E.

Earnings of operatives in Great Britain . . . . .	63
Editorial and industrial miscellany . . . . .	39, 156, 245, 383
Education, part time, by William H. Dooley . . . . .	267
Elections of 1910, the, by Winthrop L. Marvin . . . . .	383
Electrical effects in manufacture of yarn . . . . .	216
Electricity in wool . . . . .	132
Electricity, humidity and yarn condition, by Howard Priestman . . . . .	129
Elasticity of wool . . . . .	129
A standard of condition . . . . .	130
Effect of moisture . . . . .	132
Electricity in wool . . . . .	132
Interesting experiments . . . . .	133
Three forms of humidifying . . . . .	140
Cotton and wool . . . . .	142
Conditioning yarn . . . . .	143
Machine conditioning . . . . .	148
Unsatisfactory results . . . . .	150
Electric power in the West Riding, report of Consul F. I. Bright . . . . .	195
English census of production, 1907; statistics of the wool and cotton manufacture . . . . .	414
Cotton factories . . . . .	415
Woolen and worsted factories . . . . .	417
Tabular statements . . . . .	420
Exports of wool and manufactures of, comparative statement of, for twelve months ending December 31, 1908 and 1909 . . . . .	92
Twelve months ending June 30, 1909 and 1910 . . . . .	295

## F.

Factory wages in England, Joseph Benn & Sons quoted . . . . .	252
Falling wages and employment in Great Britain, report of Consul John L. Griffiths . . . . .	61
Fernau, Geo. & Son, letter on the duty on Class I. wool . . . . .	201
Fisher, Henry G. B., obituary (with portrait) . . . . .	382
First year of the Aldrich-Payne tariff . . . . .	387

	Page
For better roads . . . . .	437
Fordney, Hon. Joseph W., address on the wool duties, May 13, 1910 . . . . .	177
Forest reserves and the National Wool Growers Association . . . . .	29
Free trade nearing eclipse . . . . .	39
Free wool, Eugene N. Foss on . . . . .	285
Furniture, duty on . . . . .	202
Fur wearing apparel, duty on . . . . .	293

## G.

Goodall, Thomas, obituary (with portrait) . . . . .	152
Gooding, Fred. W., address at the National Wool Growers Convention, . . . . .	24
Grazing, open . . . . .	399
Great Britain, earnings of operatives in . . . . .	63
Employees in textile industries . . . . .	185
Falling wages and employment in, report of Consul Griffiths . . . . .	61
Textile labor in, report of Consul Ingram . . . . .	185
Griffiths, Consul General John L., report of, on falling wages and employment in Great Britain . . . . .	61
Grundy, Joseph R., letter of, to William M. Wood . . . . .	15

## H.

Half year in Australia, the . . . . .	59
Harding, Charles H., letter of, on the duty on Class I wools . . . . .	161, 169
Hartley, Harry, letter on the duty on Class I. wool . . . . .	201
Hartshorne, William D., the hygroscopic qualities of wool . . . . .	209
Hayes, Dr. John L., quoted on the revenue commission report of 1866, . . . . .	108
Hemp defibrating machine . . . . .	288
Hodgson, George H., letter on the wool tariff to the "Ohio Farmer" . . . . .	13
Home market, advantage of a . . . . .	450
Home market, the, Hon. P. P. Campbell quoted . . . . .	283
Humidifying, three forms of . . . . .	140
Hygroscopic qualities of wool, by William D. Hartshorne, comments on paper by Howard Priestman . . . . .	209
Perturbations in wool . . . . .	210
Bowman, Prof. F. H., on the structure of the wool fiber, quoted . . . . .	211
Wool fibers lengthened by moisture . . . . .	212
Twisted threads . . . . .	212
Conditioning of yarn . . . . .	214
Electrical effects . . . . .	216

## I.

Imports of manufactures of wool, 1904-1910 (table) . . . . .	329
Imports of wool and manufactures of wool, comparative statement of, twelve months ending December 31, 1909 and 1910 . . . . .	92
Twelve months ending June 30, 1909 and 1910 . . . . .	295

	Page
Imports of wool and manufactures of wool entered for consumption, fiscal years ending June 30, 1909 and 1910 . . . . .	456
Imports of wool by countries of production, immediate shipment and classes (tables) . . . . .	324, 325, 326
India, textiles in . . . . .	436
Industrial accidents, compensation for . . . . .	439
Industrial education, "The Yorkshire Post" on the value of . . . .	254
Ingram, Consul A. E., on improved wool packs . . . . .	67
Insurgency, Senator Bailey on . . . . .	287
Interests, the. The magnitude of our industries and organizations, by Thomas O. Marvin . . . . .	364
Diversity of industry desired . . . . .	365
The States and their interests . . . . .	367
Factories in every State . . . . .	371
Manufacturing interests with over \$100,000,000 capital . . . .	373
Mining interests . . . . .	374
Transportation interests . . . . .	375
Iowa, no new woolen mills in . . . . .	280
Iowa sheep show . . . . .	446
Irish peasant manufactures, Consul J. S. Armstrong on . . . . .	436

## J.

Japanese and Chinese competition . . . . .	286
Japan in wool manufacture . . . . .	76
Japan, sheep for . . . . .	448
Japan's changing commerce, by T. O. Marvin . . . . .	425
Japan's industrial development . . . . .	229
Justice, Theodore, on the world's wool production . . . . .	17

## K.

Knollin, A. J., address to the National Wool Growers Association. . .	21
---	----

## L.

Labor, lack of skilled . . . . .	448
Labor, the unrest of British . . . . .	196
Lincoln's tariff argument . . . . .	290
Lippitt, Robert Lincoln, obituary . . . . .	240
Liverpool wool sales, 1910 . . . . .	333
Living, Henry M. Steel on the cost of . . . . .	179
Living, the cost of . . . . .	412
Lodge, Hon. Henry Cabot, on wages and prices . . . . .	64
London wool sales, 1910 . . . . .	330
Lowell Textile School, address of Frederic S. Clark, June, 1910 . .	218
Low tariff victory in 1892 . . . . .	284

	Page
M.	
Manufacture on the cost of living, a statement by Henry M. Steel . .	179
Marble, Edwin T., obituary . . . . .	243
Marvin, Thomas O. :	
Japan's industrial development . . . . .	229
The interests . . . . .	364
Marvin, Winthrop L., annual report as Secretary . . . . .	7
The new tariff as an issue . . . . .	100
The elections of 1910 . . . . .	383
Mauger & Avery, quarterly report of the Boston Wool Market on for- eign wools . . . . .	97, 207, 300, 454
McHenry, Senator Samuel D., death of . . . . .	289
N.	
National Association of Wool Manufacturers, forty-fifth annual meeting . . . . .	1
Election of officers . . . . .	2
Resolutions of appreciation of President Whitman . . . . .	3
Resolution on the attitude of the Association toward national legislation . . . . .	4
Resolution on the death of William F. Draper . . . . .	4
Resolutions on the death of Josiah Perry . . . . .	5
Resolution concerning the Federal census . . . . .	6
Revision of the by-laws . . . . .	6
Special meeting, March 1, 1910 . . . . .	31
New by-laws of the Association . . . . .	31
Appointment of nominating committee for 1911 . . . . .	357
National Wool Growers Association, address of A. J. Knollin, Vice- President . . . . .	21
Forty-sixth annual convention . . . . .	24
National policies of the Wool Manufacturers Association, resolution on,	4
Need of more wool, letter of William M. Wood to the Secretary of Agriculture . . . . .	11
Letter of George H. Hodgson . . . . .	13
Letter of Joseph R. Grundy . . . . .	13
Statement of Theodore Justice . . . . .	17
World's wool production . . . . .	18
Remarks of A. J. Knollin at the convention of the National Wool Growers Association . . . . .	21
New England and the tariff . . . . .	444
New tariff as an issue, the, by W. L. Marvin . . . . .	99
New tariff as its friends see it, by Charles Heber Clark . . . . .	403
Our double rôle of producer and consumer . . . . .	404
How tariff figures mislead . . . . .	405
Our old friend the farmer . . . . .	406
The case of the universal sweetener . . . . .	407
Dear wool and cheap mutton . . . . .	409

	Page
The dimensions of the wool tax . . . . .	410
The cost of living . . . . .	412
The tariff as an artificial device . . . . .	413

## O.

Obituary . . . . .	34
General William F. Draper . . . . .	34
Josiah Perry . . . . .	36
David R. Campbell . . . . .	38
Thomas Goodall . . . . .	152
Robert Lincoln Lippitt . . . . .	240
Charles Mason Beach . . . . .	241
Frederick H. Daniell . . . . .	242
Edwin T. Marble . . . . .	243
Henry G. B. Fisher . . . . .	382
Officers of the Association for 1910 . . . . .	2
Ohio State fair, sheep at the . . . . .	449
Olive oil, duty on . . . . .	79, 80, 292

## P.

Pasturage system for handling range sheep, the. Report of the United States Department of Agriculture . . . . .	397
Open grazing . . . . .	399
Effects of the pasturage system . . . . .	400
Loss from poisonous plants . . . . .	401
Cost of handling . . . . .	402
Perry, Josiah, obituary (with portrait) . . . . .	36
Resolutions on death of . . . . .	5
Peugnet, Ramsay, Assistant Secretary of the Silk Association, annual report of 1909 . . . . .	188
Piecemeal revision, by Albert Clarke . . . . .	358
Prices, the course of wool (with chart) . . . . .	319
Priestman, Howard, electricity, humidity and yarn condition . . . . .	128
Producer and consumer, our double rôle of . . . . .	404
Production of wool in the world decreasing . . . . .	19
Protection benefits labor . . . . .	290
Protection, Roosevelt on, in 1904 . . . . .	287
Protectionism, unintelligent . . . . .	451
Poisonous plants, loss of sheep from . . . . .	401
Pollution of rivers by mill wastes . . . . .	70
Pulled wool, quantity of, in 1910 . . . . .	310

## Q.

Quarterly report of the Boston Wool Market . . . . .	95, 205, 298, 452
--	-------------------



## R.

Range sheep, the pasturage system for handling . . . . .	397
Reappraisal of mixed wools . . . . .	88
Resolution on the attitude of the Association toward national legislation, . . . . .	4
Retirement of Mr. Whitman . . . . .	353
Letter declining reelection . . . . .	353
Appointment of nominating committee . . . . .	357
Revenue Commission of 1866, report of, on wool and manufactures of, reproduced . . . . .	106
Revision downward in fact . . . . .	160
River Plate wools . . . . .	344
Rivers, the pollution of, by mill wastes . . . . .	70
Roads, for better . . . . .	437
Roosevelt on protection, 1904 . . . . .	287
Russian wools, Consul Grout on . . . . .	435

## S.

Samples of wool, government standard . . . . .	78, 83, 293
Schedule K . . . . .	442
Sheep at the Ohio State fair . . . . .	449
Sheep, cost of handling . . . . .	402
Sheep for Japan . . . . .	448
Sheep in Australasia, the number of . . . . .	60, 336
Sheep, number of, in 1910 . . . . .	301
Sheep, number of, in the world . . . . .	349
Sheep, pasturage system for handling range . . . . .	397
Sheep question, the world wide . . . . .	184
Sheep raising in New England . . . . .	17
Sheep, slaughter and movement of, 1887-1909 . . . . .	318
Sheep, slaughter of, in Australasia, 1909 . . . . .	339
Sheep station, a week on an Australian . . . . .	431
Sherman, Hon. J. S., letter from . . . . .	244
On the tariff . . . . .	171
Silk Association of America, annual meeting of the . . . . .	188
Slaughter of sheep in United States . . . . .	318
Smoot, Hon. Reed, address of, at the annual meeting of the Silk Association, 1909 . . . . .	191
Spindles, the world's cotton . . . . .	174
Steel, Henry M., on the cost of living . . . . .	179
Sugar, the duty on . . . . .	407

## T.

Talking down prosperity . . . . .	156
Tariff act of 1909, date of taking effect of . . . . .	203
Tariff, address of Vice-President Sherman at St. Louis on the . . . . .	171
Tariff, an artificial device . . . . .	413

	Page
Tariff argument, Abraham Lincoln . . . . .	290
Tariff Committee of the National Association, names and work of . .	7
Tariff figures mislead . . . . .	405
Tariff, first year of the Aldrich-Payne . . . . .	387
Tariff, piecemeal revision of the, by Albert Clarke . . . . .	358
Tariff policy, Bailey's . . . . .	449
Tariff reduction means wage reduction . . . . .	447
Tariff revision, resolutions of the National Wool Growers Association against further . . . . .	28
Tariffs and prices . . . . .	281
Textile industries, employees in, in Great Britain . . . . .	185
Textiles in India . . . . .	436
Textile Institute of Yorkshire, England, the . . . . .	393
Textile labor in Great Britain, report of Consul A. E. Ingram . . .	185
Textile machinery, progress of, in America and Germany . . . . .	42
"Textile Recorder" quoted on the progress of textile machinists in America and Germany . . . . .	41
Textiles and the progress of invention . . . . .	429
The duty on Class I wools. Correspondence of C. H. Harding and others . . . . .	161
Letter of Charles H. Harding . . . . .	161, 169
Letter of Robert Bleakie . . . . .	164
Letter of Harry Hartley . . . . .	201
Letter of George Fernau and Son . . . . .	201
The new industrial China . . . . .	158
Trade organizations, address of Frederic S. Clark before the Lowell Textile School, June, 1910 . . . . .	218
The National Association of Wool Manufacturers . . . . .	221
The American Association of Woolen and Worsted Manufacturers, .	224
Turkish wool trade . . . . .	276
"Twenty Cents a Day" . . . . .	441

## U.

Unrest of British labor, the . . . . .	196
Umpleby, Fenwick, Principal of the Bradford-Durfee Textile School, Fall River . . . . .	265
Uruguay wools, imports of, into the United States, 1904-1910 . . .	344
Utilization of waste products, by Hon. B. Broadbent, address at the Huddersfield Technical College . . . . .	69

## V.

Victory over class legislation, a (the Danbury hatters' case) . . . .	248
---	-----

## W.

Wages and prices, Senator Lodge on . . . . .	64
Wages in England, factory, Joseph Benn & Sons on . . . . .	252

	Page
Walker, Secretary George S., report of, to the National Wool Growers Association . . . . .	26
Waste products, utilization of, by Hon. B. Broadbent . . . . .	69
Week on an Australian sheep station, a . . . . .	431
Whitman, William, resolutions of appreciation of . . . . .	3
Letter declining reelection to the Presidency . . . . .	333
Wilson, Hon. James, letter of William M. Wood to . . . . .	11
Wood, William M., letter to the Hon. James Wilson, Secretary of Agriculture . . . . .	11
Wool, a college course in, Consul General Baker quoted . . . . .	266
Wool and cotton manufactures, statistics of the English . . . . .	414
Wool and manufactures of, entered for consumption, fiscal years ending June 30, 1909 and 1910 . . . . .	456
Wool and woolen trade, annual review of the British, for 1909 . . . . .	42
Wool auctions, Australasian . . . . .	340
Wool bathing shoes, duty on . . . . .	203
Wool, Boston receipts and shipments of . . . . .	320
Wool, drawback on carded . . . . .	204, 292
Wool duties in Congress, the Hon. J. W. Fordney quoted . . . . .	177
Wool duty as a farmer sees it, the ("New York Sun" quoted) . . . . .	196
Wool, duty on first class, washed . . . . .	293
Wool, elasticity of . . . . .	129
Wool, electricity in . . . . .	132
Woolen and worsted production, British . . . . .	68
Woolen mills, Chinese . . . . .	277
Wool fiber lengthened by moisture . . . . .	212
Wool, fleece, pulled and scoured, statistics . . . . .	312, 314
Wool growing and the tariff, by Chester W. Wright, review of . . . . .	245
Wool imported into Boston, New York, and Philadelphia by countries of production and immediate shipment . . . . .	321, 324, 325, 326
Wool manufacture in Japan . . . . .	76
Wool packs, improved . . . . .	67
Wool, preparation of, for market in Australasia . . . . .	342
Wool production and consumption, the world's . . . . .	347
Wool production by States, 1910 (map) . . . . .	313
Wool production in South Africa . . . . .	343
Wool production of the United States, 1910 . . . . .	309
Wool production of the world . . . . .	18
Wool product, 1910, value of the . . . . .	314
Wool, reappraisement of mixed . . . . .	88
Wool review, the annual . . . . .	301
Wool, Russian . . . . .	435
Wool sales, Liverpool, 1910 . . . . .	333
Wool sales, London, 1910 . . . . .	330
Wool season of 1909-1910 in Australia (Goldsborough, Mort & Co. quoted) . . . . .	198
Wool — shrinkage — drying, duty on . . . . .	291

	Page
Wool, standard samples of . . . . .	78, 83, 293
Wool storehouse, a great Boston . . . . .	305
Wool supply, the annual . . . . .	316
Wool tax, the dimensions of the . . . . .	410
Wool, the duty on Class I, correspondence between Charles H. Harding and Robert Bleakie . . . . .	161
Wool, the need of more . . . . .	11
Wool, the packing of, "Yorkshire Post" quoted . . . . .	434
Wool trade, Turkish . . . . .	276
Wool values, the causes of increased . . . . .	342
Wool warehouse, a great Boston . . . . .	305
Wool warehouse, Chicago . . . . .	307
World's cotton spindles, the . . . . .	174
World-wide sheep question, the ("Canadian Textile Journal") . .	184

## Y.

Yarn, conditioning of . . . . .	143, 214
Yarn, effects of electricity in manufacture of . . . . .	216

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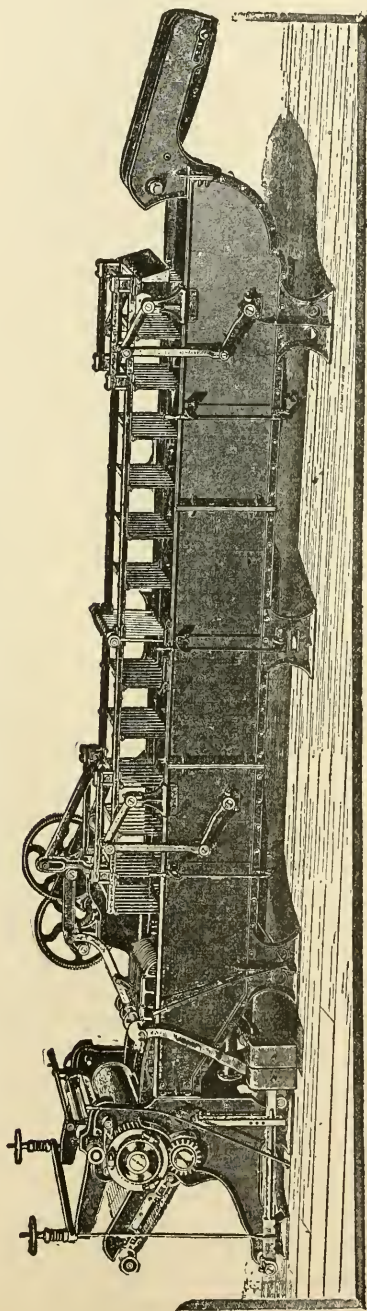
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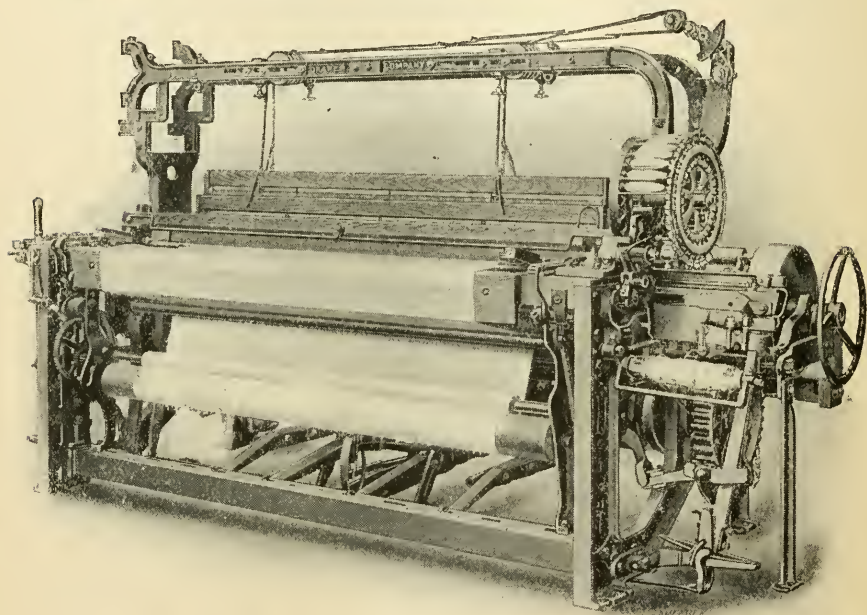
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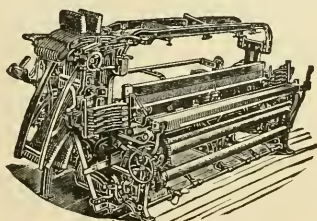
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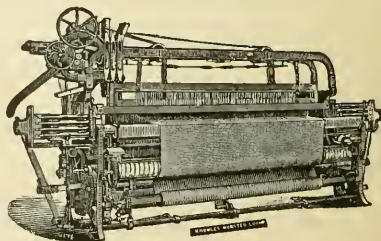
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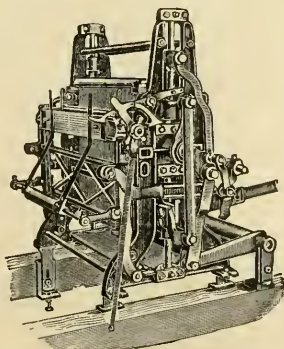
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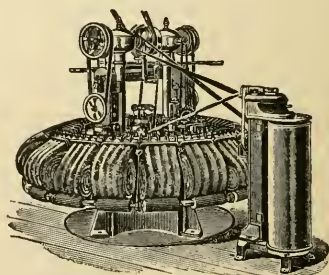
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